

***LABORATORY SERVICES BUREAU***

***PUBLIC HEALTH LABORATORY***

# ***LABORATORY SERVICES MANUAL***

***Effective July 1, 2010 to June 30, 2012***

# Clinical Testing List of Services

For tests not listed, please contact the laboratory (800-821-7284) for availability.

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# Tests in Alphabetical Order

\*\*\*A\*\*\*

**Acid Fast Bacilli (AFB) ([see \*Mycobacterium\* spp.](#))**

***Actinomyces* spp. Culture Isolation/ Identification ([see Bacterial Culture, Anaerobic](#))**

**Adenovirus Culture ([see Respiratory Virus Culture](#))**

**Adenovirus Direct Detection by Real Time PCR**

Specimen Requirements: Respiratory specimen in Microtest Transport Media. [See specific instructions.](#)

Turn Around Time: 1 to 3 working days. Results are telephoned to the submitter.

CPT Code: 87798

Price: \$95.00

Transport Temperature: 2-8°C

**Amebiasis Detection ([see Ova and Parasite Exam](#))**

**Anthrax ([see \*Bacillus anthracis\*](#))**

**Antimicrobial Resistant Bacteria Confirmation**

Specimen Requirements: Isolate submitted in Cary-Blair transport or on solid media.

Submit any isolate that demonstrates a resistance pattern that has high epidemiologic significance, such as potential Vancomycin Resistant or Intermediate *Staphylococcus aureus*, Methicillin Resistant *Staphylococcus aureus*, Vancomycin Resistant Enterococci, ESBL producing *Enterobacteriaceae*, KPC, and resistant *S. pneumoniae*.

Turn Around Time: 2 to 4 working days. May be referred to the Centers for Disease Control in Atlanta, Georgia.

CPT Code: None

Price: Fee Waived

Transport Temperature: Ambient

***Aspergillus* spp. Culture Isolation/ Identification ([see Fungal Culture](#))**

***Actinomyces* spp. Serology**

Specimen Requirements: 2 mL serum

Referred to the Centers for Disease Control, Atlanta, Georgia

Turn Around Time: 3 to 6 weeks

CPT Code: 86602

Price: \$25.00

Transport Temperature: Ambient

**Amebiasis Serology ([see \*Entamoeba histolytica\* serology](#))**

**Arbovirus Serology, Additional Tests (WEE and California Group) by cELISA, ELISA**

Specimen Requirements: 2 mL serum or CSF

Paired acute and convalescent serum recommended. Date of onset must be included on requisition form.

Referred to the Centers for Disease Control, Fort Collins, CO

PHL Lab Manual 2010-12 ver1.4 Effective September 2, 2011

Turn Around Time: 4 to 6 weeks

CPT Codes: 86654 (Western Equine Encephalitis)  
Price: \$12.50

86651 (California Group)  
Price: \$12.50

Total Price: \$25.00

Transport Temperature: Ambient

### **Autoclave Monitoring**

Specimen Requirements: BT Sure vials containing *Bacillus stearothermophilus* are obtained by contacting the laboratory. Place the BT Sure vial in center of load to be sterilized, then autoclave using normal procedures.

Turn Around Time: 2 working days from receipt of specimen

CPT Code: No code  
Price: \$20.50

Transport Temperature: Ambient

**\*\*\*B\*\*\***

### **Babesia Detection**

Specimen Requirements: Blood smear, unstained or stained with Wright's or Giemsa.

Turn Around Time: 1 to 2 working days. Positive smears are referred to the Centers for Disease Control, Atlanta, Georgia for confirmation.

CPT Code: 87207  
Price: \$29.00

Transport Temperature: Ambient

### **Babesia Serology by IFA**

Specimen Requirements: 2 mL serum

Referred to the Centers for Disease Control, Atlanta, Georgia  
Turn Around Time: 3 to 6 weeks

CPT Code: 86256  
Price: \$25.00

Transport Temperature: Ambient

### **Bacillus anthracis Culture Isolation/ Identification/Rapid Test Methods**

Specimen Requirements: Lesion swab, clinical specimen or culture isolate on solid media or in Cary-Blair transport. Call laboratory for special instructions regarding environmental samples and rapid testing options.

A suspect *B. anthracis* culture requires Infectious Disease packaging (Class 6.2) and trackable shipping. Please notify the laboratory by telephone at time of shipment.

Turn Around Time: Cultures will be held for 3 working days before reporting as negative. Results are telephoned as soon as possible to the submitter. Rapid test methods are performed in Molecular Diagnostics and are available within 6 - 8 hours of specimen receipt.

CPT Code: 87081 (Culture screen)  
Price: \$32.75

87798 (PCR)  
Price: Fee Waived

Transport Temperature: Ambient

### **Bacillus anthracis Rapid Test Methods** ([see Bacillus anthracis Culture Isolation](#))

#### **Bacterial Culture Identification, Aerobic**

Specimen Requirements: Send non-fastidious Gram negative or Gram positive isolates on solid media or on swab in Cary-Blair transport. Fastidious or slow growing organisms require careful transport on an enriched agar medium. Please contact the laboratory prior to submission regarding transport instructions for unusual organisms.

Turn Around Time: Normally 3 to 14 working days, depending on the growth rate of the isolate.

CPT Code: 87070 (culture, presumptive ID)  
Price: \$21.00

87077 (Each add'l ID)  
Price: \$18.25

Transport Temperature: Ambient

#### **Bacterial Culture Identification, Anaerobic**

Specimen Requirements: Send isolate in an anaerobic transport system.

Turn Around Time: Normally 3 to 14 working days, depending on the growth rate of the isolate.

CPT Code: 87075 (culture, presumptive ID)  
Price: \$21.00

87076 (Each add'l ID)  
Price: 21.00

Transport Temperature: Ambient

#### **Bartonella spp. (formerly Rochalimaea spp.) Culture Isolation/ Identification**

Specimen Requirements: Collect blood in EDTA tube; freeze blood or tissue prior to transport. Send specimen on dry ice.

Turn Around Time: Negative cultures are monitored for 14 days; positive culture results are telephoned to the submitter.

CPT Code: 87081 (Culture ID)  
Price: \$32.75

Transport Temperature: Ambient

#### **Bartonella spp. (formerly Rochalimaea spp.) Serology by IFA**

Specimen Requirements: 2 mL serum, plus completed cat scratch fever disease history form. The laboratory will fax you a form upon request.

Referred to the Centers for Disease Control, Atlanta, Georgia

Turn Around Time: 4 to 6 weeks

CPT Code: 86256  
Price: \$25.00

Transport Temperature: Ambient

#### **Blastomyces spp. Culture Isolation/ Identification** ([see Fungal Culture](#))

#### **Blastomyces, Histoplasma, Coccidioides Identification by Nucleic Acid Probe**

Specimen Requirements: Isolates sent on Sabouraud's slants or as reflex testing on positive primary specimens submitted for culture.

Turn Around Time: 1 to 3 working days for submitted isolates, others dependent on growth rate.

CPT Code: 87149 X 3  
Price: \$29.50 each

Transport Temperature: Ambient

#### **Blastomyces spp. Serology** ([see Fungal Serology](#))

**Blood Borne Pathogen Exposure/Source Patient (HBsAg, HIV, HCV) by EIA**

Specimen Requirements: 2 mL serum

Turn Around Time: Routinely batch tested once per week. Positive results are telephoned to the submitter. These tests may be ordered as a panel, but are billed individually.

CPT Codes: 87340 (HBsAg)  
Price: \$21.53

86703 (HIV)  
Price: \$21.00

86803 (HCV)  
Price: \$36.25

Total Price: \$78.78

Transport Temperature: Ambient

**Blood Borne Pathogen Exposure - Exposed Worker (HBsAb, HIV, HCV) by EIA**

Specimen Requirements: 2 mL serum

Turn Around Time: Routinely batch tested once per week. Positive results are telephoned to the submitter. These tests may be ordered as a panel, but are billed individually.

CPT Code: 86706 (HBsAb)  
Price: \$24.25

86703 (HIV)  
Price: \$21.00

86803 (HCV)  
Price: \$36.25

Total Price: \$81.50

Transport Temperature: Ambient

**Blood Lead by Anodic Stripping Voltometry**

Specimen Requirements: 1 mL venous or 0.3 mL capillary whole blood, EDTA (purple top). Adult and child specimen collection kits are available through the laboratory. The laboratory is certified to test for both child and adult lead levels. See instructions on the collection and transport of [capillary](#) and [venous](#) specimens.

Turn Around Time: Routinely batch tested at least twice per week. Elevated results are telephoned to the submitter.

CPT Code: 83655  
Price: \$20.50

Transport Temperature: Ambient

**Bordetella pertussis Culture Isolation/Identification**

Specimen Requirements: Nasopharyngeal (NP) swab in Regan-Lowe transport. Remove the transport medium from the refrigerator and warm to room temperature. Collect specimen. Insert the swab into the transport, cut or break off the end of the swab so that the cap can be tightened securely. Put the transport in the zip-lock bag provided. Do not refrigerate transport medium after it has been inoculated. Regan-Lowe is the only transport media acceptable for pertussis cultures.

Turn Around Time: Negative cultures are monitored for 7 days. Positive culture results may take 3-7 working days and are telephoned to the submitter.

CPT Code: 87081 (Culture screen)  
Price: \$32.75

87077 (Each add'l ID)  
Price: \$18.25

Transport Temperature: Ambient

**Bordetella pertussis/Bordetella parapertussis Direct Detection by Real Time PCR**

Specimen Requirements: Nasal washings or nasopharyngeal (NP) swab in a sterile container. Do not submit a throat or nares specimen. [See specific instructions](#).

Turn Around Time: 1 to 2 working days. Positive results are telephoned to the submitter.

NOTE: PCR testing should be performed only on symptomatic patients; a positive PCR in an asymptomatic patient does not meet the standard CDC case definition and cannot be considered a case of pertussis. PCR testing may be able to detect *B. pertussis* 3 to 4 weeks post onset, and after antibiotic therapy has been initiated.

CPT Code: 87798

Price: \$95.00

Transport Temperature: 2-8°C for nasal washings, ambient for NP swabs

**Borrelia burgdorferi Serology by EIA with reflex Western Blot confirmation**

Specimen Requirements: 2 mL serum and a completed [Lyme Disease report form](http://www.cdc.gov/ncidod/dvbid/lyme/resources/LymeDiseaseCaseReportForm.pdf) (access the form at: <http://www.cdc.gov/ncidod/dvbid/lyme/resources/LymeDiseaseCaseReportForm.pdf>). Date of onset information must be included.

Referred to the Centers for Disease Control, Fort Collins, Colorado

Turn Around Time: 6 to 8 weeks

CPT Code: 86618 (Screen)

Price: \$25.00

Transport Temperature: Ambient

**Borrelia hermsii Serology (Tick Borne Relapsing Fever) by EIA**

Specimen Requirements: 2 mL serum

Paired acute and convalescent serum recommended. Date of onset information must be included on requisition form.

Referred to the Centers for Disease Control, Fort Collins, Colorado

Turn Around Time: 4 to 6 weeks

CPT Code: 86619

Price: \$25.00

Transport Temperature: Ambient

**Borrelia burgdorferi Culture**

Specimen Requirements: Skin punch biopsy, synovial fluid, CSF. Contact the laboratory prior to collection for special instructions and transport media.

Referred to the Centers for Disease Control, Fort Collins, Colorado

Turn Around Time: 4 to 6 weeks

CPT Code: 87081

Price: \$25.00

Transport Temperature: Ambient

**Brucella spp. Culture Isolation/ Identification/Rapid Test Methods**

Specimen Requirements: Blood, bone marrow, or tissue submitted in sterile saline or broth. Submit suspect culture isolates on solid medium. Call the laboratory for special instructions regarding environmental samples and rapid testing options.

A suspect *Brucella spp.* culture requires Infectious Disease packaging (Class 6.2) and trackable shipping. Please notify the laboratory by telephone at time of shipment.

Turn Around Time: Cultures will be held for 2 weeks before reporting as negative. Results are telephoned as soon as possible to the submitter. Rapid test methods are performed in Molecular Diagnostics and are available within 6 - 8 hours of specimen receipt.

CPT Code: 87081 (Culture screen)

Price: \$32.75

87798 (PCR)

Price: Fee Waived

Transport Temperature: Ambient

**Brucella spp. Rapid Test Methods (see [Brucella spp. Culture Isolation](#))**

### **Brucella Serology by Bacterial Agglutination**

Specimen Requirements: 2 ml. Serum

Paired acute and convalescent serum recommended.

Turn Around Time: Routinely batch tested once per week. Positive results are telephoned to the submitter.

**NOTE: Tularemia serology will be automatically performed on all requests for Brucella serology due to antigen cross reactivity.**

CPT Codes: 86622 (Brucella) Price: \$18.00

86668 (Tularemia) Price: \$18.00

**Total Price: \$36.00**

Transport Temperature: Ambient

### **Burkholderia mallei, B. pseudomallei Culture Isolation / ID / Rapid Test Methods**

Specimen Requirements: Clinical specimen in sterile container or isolate submitted in Cary-Blair transport or on solid medium. Call laboratory for special instructions regarding environmental samples and rapid testing options.

A suspect *Burkholderia mallei* or *B. pseudomallei* culture requires Infectious Disease packaging (Class 6.2) and trackable shipping. Please notify the laboratory by telephone at time of shipment.

Turn Around Time: Cultures will be held for 2 weeks before reporting as negative. Results are telephoned as soon as possible to the submitter. Rapid test methods are performed in Molecular Diagnostics and are available within 6 - 8 hours of specimen receipt.

CPT Code: 87081 (Culture screen)

Price: \$32.75

87798 (PCR)

Price: Fee Waived

Transport Temperature: Ambient

### **Burkholderia mallei, B. pseudomallei Rapid Test Methods ([see Burkholderia mallei, B. pseudomallei Culture Isolation](#))**

**\*\*\*C\*\*\***

### **Campylobacter spp. Culture Isolation/Identification**

Specimen Requirements: Stool in submitted in Cary-Blair transport or culture isolate on solid media.

Turn Around Time: 3 to 5 working days. Positive results are telephoned to the submitter.

CPT Code: 87046 (Culture ID)

Price: \$13.75

87077 (Each add'l ID)

Price: \$18.25

Transport Temperature: 2-8°C for stool specimens, ambient for isolates

### **Candida albicans Culture Isolation/Identification ([see Fungal Culture](#))**

### **Cat Scratch Fever ([see Bartonella spp. Serology](#))**

### **Central Nervous System (CNS) Virus Culture Isolation/Identification**

Specimen Requirements: CSF or Central Nervous System specimen in Microtest Transport Media, received within 48 hours of collection. [See collection instructions.](#)

Turn Around Time: Cultures are monitored for 2 weeks prior to a negative report. Positive results are telephoned to the submitter.

NOTE: CNS specimens for virus isolation are screened for the presence of the following commonly isolated viruses: Herpes Simplex Virus, Enterovirus (including Echovirus and Coxsackie A & B) and Adenovirus

CPT Code: 87252 (culture)  
Price: \$38.50

87253 (Virus ID) Each add'l ID  
Price: \$30.00

Transport Temperature: 2-8°C

**Chagas Disease (see *Trypanosomiasis* Detection)**

**Chancroid (see *Haemophilus ducreyi* Culture Isolation)**

***Chlamydia* spp. Culture Isolation/Identification**

Specimen Requirements: Specimen in Microtest Transport Media received within 48 hours of collection. [See collection instructions.](#)

Turn Around Time: 3 to 6 working days. Positive test results are telephoned to the submitter.

CPT Code: 87110  
Price: \$38.50

Transport Temperature: 2-8°C

***Chlamydia trachomatis* Direct Detection by Nucleic Acid Amplification**

Specimen Requirements: Endocervical, male urethral, throat or rectal swab in APTIMA Uni-Sex Swab Specimen Collection Tube, vaginal swab in APTIMA Vaginal Specimen Collection Tube, or urine in APTIMA Urine Specimen Collection Tube. [See specific instructions.](#)

Turn Around Time: Routinely tested each working day. Positive results are telephoned to the submitter.

NOTE: Can be run in tandem with *Neisseria gonorrhoeae* Direct Detection by APTIMA Amplification (see Combination Amplification Test below).

CPT Code: 87491  
Price: \$44.00

Transport Temperature: 2-30°C

***Chlamydia trachomatis/Neisseria gonorrhoeae* Direct Detection by NAAT (Combo Test)**

Specimen Requirements: Endocervical, male urethral, throat or rectal swab in APTIMA Uni-Sex Swab Specimen Collection Tube, vaginal swab in APTIMA Vaginal Specimen Collection Tube, or urine in APTIMA Urine Specimen Collection Tube. [See specific instructions.](#)

Turn Around Time: Routinely tested each working day. Positive results are telephoned to the submitter. These tests can be ordered as a panel, but will be billed individually.

CPT Codes: 87491 (Chlamydia)  
Price: \$44.00

87591(GC)  
Price: \$44.00

Total Price: \$88.00

Transport Temperature: 2-30°C

**Cholera (see *Vibrio* Culture Isolation/ Identification)**

***Clostridium botulinum* (Botulism) Bacterial ID, Toxin, and Serology Testing**

Consultation with laboratory required prior to referral.

Specimen Requirements: Suspect food, 10 mL serum, and 25 gm stool. Call the laboratory for consultation on sending specimens. An epidemiologic consultation is required, and to make arrangements for receiving antitoxin. .

Food testing performed at MTPHL.

Human testing referred to the Utah State Public Health Laboratory in Salt Lake City, UT.

Turn Around Time: Preliminary results in 2 to 4 working days.

PHL Lab Manual 2010-12 ver1.4 Effective September 2, 2011

CPT Code: None  
Price: Fee Waived\*

Transport Temperature: Contact the laboratory

**Clostridium difficile Toxin A & B and Antigen Test by EIA**

Specimen Requirements: Submit at least one milliliter of raw stool in a sterile container. Freeze the specimen.

Turn Around Time: 1 to 2 working days. Positive test results are telephoned to the submitter.

CPT Code: 87324  
Price: \$26.75

Transport Temperature: 2-8°C

**Clostridium spp. (except C. botulinum) Culture Isolation/ ID (see Bacterial Culture, Anaerobic)**

**CMV (see Cytomegalovirus)**

**CNS Virus Culture (see Central Nervous System Virus Culture)**

**Coccidioides spp. Culture Isolation/ Identification (see Fungal Culture)**

**Coccidioidomycosis Serology (see Fungal Serology)**

**Colorado Tick Fever Virus (CTFV) Serology, IgG by Indirect Immunofluorescence**

Specimen Requirements: 1 mL serum  
Paired acute and convalescent serum recommended.

Turn Around Time: Routinely batch tested once per week. Positive results are telephoned to the submitter.

NOTE: Rocky Mountain Spotted Fever testing will automatically be performed on all requests for Colorado Tick Fever.

CPT Code: 86790 (CTFV)	86757 (RMSF)	Total Price: \$42.00
Price: \$21.00	Price: \$21.00	

Transport Temperature: Ambient

**Corynebacterium diphtheriae Culture Isolation/ Identification**

Specimen Requirements: Throat swab in silica gel or Cary Blair transport medium, or isolate in Cary Blair transport or solid media.

Turn Around Time: 4 to 7 working days. Positive results are telephoned to the submitter.

NOTE: Please call ahead to notify the laboratory, as special media needs to be prepared prior to receipt.

CPT Code: 87081 (Culture screen)  
Price: \$32.75

Transport Temperature: Ambient

**Corynebacterium spp. (not C. diphtheriae) Culture Isolation/ ID (see Bacterial Culture, Aerobic)**

**Coxiella brunetii Serology (see Q fever Serology)**

**Cryptococcus spp. Culture Isolation/ Identification (see Fungal Culture)**

**Cryptosporidium / Cyclospora / Isospora Detection by Fluorescent Stain**

Specimen Requirements: Stool in formalin

Turn Around Time: Performed each working day. Positive results are telephoned to the submitter.

CPT Code: 87207

Price: \$29.00

Transport Temperature: Ambient

### **Culture for Storage**

Specimen Requirements: Isolate submitted in Cary-Blair transport or on solid media.

Submit organisms that are of epidemiologic interest and need to be stored for molecular comparison to other strains. Laboratories are encouraged to submit organisms which may be part of an outbreak or which demonstrate a significant antibiotic resistance, i.e. *Salmonella spp.*, *E. coli* O157, Toxigenic *E. coli*, *Shigella spp.*, *N. gonorrhoeae*, *N. meningitidis* from a sterile site, *H. influenzae* from a sterile site, resistant *Streptococcus pneumoniae*, MRSA, VRE, ESBL, KPC, potential VISA or VRSA.

CPT Code: None

Price: Fee Waived

Transport Temperature: Ambient

### **Cyclospora Detection (see Cryptosporidium / Cyclospora / Isospora Detection)**

### **Cysticercosis (Taenia spp.) Detection**

Specimen Requirements: Stained tissue section

Referred to the Centers for Disease Control, Atlanta, Georgia

Turn Around Time: 2 to 4 weeks

CPT Code: 87207

Price: \$25.00

Transport Temperature: Ambient

### **Cytomegalovirus (CMV) Culture Isolation/Identification**

Includes both traditional tube culture and spun vial technology

Specimen Requirements: Urine, BAL, or Bronchial Washings in Microtest Transport Media, Heparinized Blood, Biopsies, received within 48 hours of collection. [See collection instructions.](#)

Turn Around Time: Spun vial results available within 2 to 3 working days. Cultures are monitored for 1 month before reporting as negative. Cultures of tissue samples are monitored for 2 months prior to a negative report. Positive results are telephoned to the submitter.

CPT Code: 87252 (culture)

87254 (spun vial)

Total Price: \$ 67.50

Price: \$38.50

Price: \$ 29.00

Transport Temperature: 2-8°C

### **Cytomegalovirus (CMV) IgG Serology by EIA**

Specimen Requirements: 1 mL serum

Screen or paired acute and convalescent specimens

Turn Around Time: Routinely batch tested once per week. Significant results are telephoned to the submitter.

CPT Code: 86644

Price: \$21.00

Transport Temperature: Ambient

**Cytomegalovirus (CMV) IgM Serology by Capture EIA**

Specimen Requirements: 1 mL serum

Screen or paired acute and convalescent specimens

Turn Around Time: Testing performed each working day. IgM results are telephoned to the submitter.

CPT Code: 86645

Price: \$37.25

Transport Temperature: Ambient

**Cysticercosis (*Taenia spp.*) Serology by Immunoblot**

Specimen Requirements: 2 mL serum

Referred to the Centers for Disease Control, Atlanta, Georgia

Turn Around Time: 3 to 6 weeks

CPT Code: 84182

Price: \$25.00

Transport Temperature: Ambient

**\*\*\*D\*\*\***

**Dengue Fever Serology by ELISA**

Specimen Requirements: 2 mL serum

Referred to the Centers for Disease Control, San Juan, Puerto Rico

Turn Around Time: 4 to 6 weeks

CPT Code: 86790

Price: \$25.00

Transport Temperature: Ambient

**Dermatophytes Culture Isolation/ Identification ([see Fungal Culture](#))**

**Diphtheria ([see \*Corynebacterium diphtheriae\* Culture Isolation](#))**

**DNA Fingerprinting ([see Pulsed Field Gel Electrophoresis for enterics or other organisms](#))**

**\*\*\*E\*\*\***

**Echinococcosis Detection**

Specimen Requirements: Stained tissue section

Referred to the Centers for Disease Control, Atlanta, Georgia

Turn Around Time: 1 to 3 weeks

CPT Code: 87207

Price: \$25.00

Transport Temperature: Ambient

**Echinococcosis Serology by EIA**

Specimen Requirements: 2 mL serum

Referred to the Centers for Disease Control, Atlanta, Georgia  
Turn Around Time: 2 to 4 weeks

CPT Code: 84182  
Price: \$25.00

Transport Temperature: Ambient

**EHEC, Enterohemorrhagic *E. coli* (see [Escherichia coli Shiga-Like Toxin Assay](#) or [Enteric Panel](#))**

***Ehrlichia* spp. Serology by Indirect Immunofluorescence**

Specimen Requirements: 2 mL serum

Referred to the Centers for Disease Control, Atlanta, Georgia  
Turn Around Time: 4 to 6 weeks

CPT Code: 86682  
Price: \$25.00

Transport Temperature: Ambient

**Entameba histolytica Serology by EIA**

Specimen Requirements: 2 mL serum Include documentation of negative stool examinations for *E. histolytica*.

Referred to the Centers for Disease Control, Atlanta, Georgia  
Turn Around Time: 3 to 6 weeks

CPT Code: 86753  
Price: \$25.00

Transport Temperature: Ambient

**Enteric Panel Culture Isolation/ Identification (includes *Salmonella*, *Shigella*, *Campylobacter*, *E. coli* O157 and EHEC)**

Specimen Requirements: Stool in Cary-Blair transport, or other commercial enteric transport media. Collect stool directly from patient into a clean specimen container. Do not collect from toilet bowl or use stool contaminated with urine. Use a sterile swab to collect a portion of the stool (collect from bloody or mucous-containing areas if present) and insert swab to the lower part of a Cary-Blair transport tube and break or cut the swab stick. A rectal swab is also acceptable if there is evidence of fecal staining on the swab. Cary-Blair transport tubes are supplied upon request.

*Escherichia coli* Shiga-Like Toxin Assay will be performed on all specimens. Stools with positive toxin tests will be further cultured to isolate and identify the toxin-producing organism.

Turn Around Time: 2 to 4 working days. Positive test results are telephoned to the submitter.

CPT Codes: 87046 ( <i>E. coli</i> )	87046 ( <i>Campy</i> culture)	87077 (Each add'l ID)
Price: \$13.75	Price: \$13.75	Price: \$18.25
87045 ( <i>Salm.</i> and <i>Shig.</i> culture)	CPT Code (EHEC): 87449	Total Price: \$65.00
Price: \$13.75	Price: \$23.75	

Transport Temperature: 2-8°C

**Enteric Isolate Surveillance**

Specimen Requirements: All isolates of shiga-toxin producing *Escherichia coli* (including serotype O157:H7), *Salmonella* spp., *Shigella* spp., *Vibrio*, and *Listeria* should be referred for surveillance purposes.

Confirmation of isolates is performed and results are reported to submitter. In addition, PFGE testing (DNA fingerprinting) will be performed to determine strain-relatedness; results are compared to other strain patterns in Montana and across the nation using the CDC PulseNet database. Results are communicated to the DPHHS Epidemiology staff for follow up.

Turn Around Time: Routinely tested each week.

CPT Code: none  
Price: Fee Waived

Transport Temperature: Ambient

### **Enteric Virus Culture Isolation/Identification**

Specimen Requirements: Stool or Rectal Swab in Microtest Transport Media, received within 48 hours of collection. [See collection instructions.](#)

Turn Around Time: Cultures are monitored for 2 weeks prior to a negative report. Positive results are telephoned to the submitter.

NOTE: Enteric specimens for virus isolation are screened for the following commonly isolated viruses: Enterovirus (including Echovirus and Coxsackie A & B), Adenovirus, and Herpes Simplex Virus

CPT Code: 87252 (culture)	87253 (Virus ID) Each add'l ID
Price: \$38.50	Price: \$30.00

Transport Temperature: 2-8°

### **Enterovirus Culture (see Enteric Virus Culture)**

### **Enterovirus (Pan-Enterovirus) Detection by Nucleic Acid Amplification Testing**

Specimen Requirements: CSF in a sterile transport container, raw stool in a sterile transport container, respiratory specimens (solid or swabs). [See specific instructions.](#)

Turn Around Time: 1 to 3 working days. Positive results are telephoned to the submitter.

CPT Code: 87498  
Price: \$89.25

Transport Temperature: 2-8°C

### **ESBL (see Antimicrobial Resistant Bacteria Confirmation)**

### **Escherichia coli O157 Culture Isolation/Identification**

Specimen Requirements: Stool specimen in Cary-Blair transport, or other commercial enteric transport media, or culture isolate submitted in Cary Blair transport or on solid media.

For public health surveillance, please submit all isolates of *E. coli* O157 to the laboratory. [See Enteric Isolate Surveillance.](#)

Turn Around Time: 2 to 4 working days. Positive results are telephoned to the submitter.

CPT Code: 87046 (Culture ID)	87077 (Each add'l ID)
Price: \$13.75	Price: \$18.25

Transport Temperature: 2-8°C for stool, ambient for isolates

### **Escherichia coli Shiga-Like Toxin Assay (Enterohemorrhagic *E. coli*, EHEC or STEC) by EIA**

Specimen Requirements: Stool specimen in Cary-Blair transport, or other commercial enteric transport media, or *Escherichia coli* isolate submitted in Cary Blair transport or on solid media.

EHEC is also performed on all routine [enteric panels](#).

Turn Around Time: 2 to 4 working days. Positive results are telephoned to the submitter. Stools with positive toxin tests will be further cultured to isolate and identify the toxin-producing organism.

CPT Code: 87449  
Price: \$23.75

Transport Temperature: 2-8°C

**Exanthem Serology Panel, IgG only (Rubeola, Rubella, HSV, VZV, CTF V and RMSF (during tick season) by EIA, IFA**

Specimen Requirements: 2 mL serum

Paired acute and convalescent serum recommended. Date on onset of rash must be included on requisition form.

Turn Around Time: Routinely batch tested once per week. Significant results are telephoned to the submitter. These tests may be ordered as a panel, but will be billed individually.

NOTE: Tick season is normally March through September.

CPT Codes: 86765 (Rubeola)		Price: \$21.00
Price: \$21.00	86696 (HSV2)	
	Price: \$21.00	
86762 (Rubella)		86790 (CTFV)
Price: \$21.00		Price: \$21.00
Transport Temperature: Ambient		86757 (RMSF)
86695 (HSV1)		Price: \$21.00
Price: \$21.00	86787 (VZV)	
Total Price: \$147.00		

**Exanthem Panel, IgG + IgM (Rubeola IgG + IgM, Rubella IgG + IgM, HSV, VZV, CTFV and RMSF (during tick season) by EIA, IFA**

Specimen Requirements: 2 mL serum

Paired acute and convalescent serum recommended. Date on onset of rash must be included on requisition form.

Turn Around Time: Routinely batch tested once per week. IgM testing performed each working day, as needed. Significant results are telephoned to the submitter. These tests may be ordered as a panel, but will be billed individually.

NOTE: Tick season is normally March through September.

CPT Codes: 86765 (Rubeola IgG)	86762 (Rubella IgM)	86787 (VZV)
Price: \$21.00	Price: \$21.00	Price: \$21.00
86765 (Rubeola IgM)	86695 (HSV1)	86790 (CTFV)
Price: \$21.00	Price: \$21.00	Price: \$21.00
86762 (Rubella IgG)	86696 (HSV2)	86757 (RMSF)
Price: \$21.00	Price: \$21.00	Price: \$21.00
		Total Price: \$189.00

Transport Temperature: Ambient

**\*\*\*F\*\*\***

**Francisella tularensis Culture Isolation/ Identification/Rapid Test Methods**

Specimen Requirements: Clinical specimen in sterile container or pure culture submitted in Carey-Blair transport or on solid medium. Call laboratory for special instructions regarding environmental samples and rapid testing options.

A suspect *F. tularensis* culture requires Infectious Disease packaging (Class 6.2) and trackable shipping. Please notify the laboratory by telephone at time of shipment.

Turn Around Time: Cultures will be held for 2 weeks before reporting as negative. Results are telephoned as soon as possible to the submitter. Rapid test methods are performed in Molecular Diagnostics and are available within 6 - 8 hours of specimen receipt.

CPT Code: 87081 (Culture screen)	87798 (PCR)
Price: \$32.75	Price: Fee Waived

Transport Temperature: Ambient

**Francisella tularensis Rapid Test Methods (see [Francisella tularensis Culture Isolation](#))**

**Francisella tularensis Serology by Bacterial Agglutination**

Specimen Requirements: 2 mL serum

Paired acute and convalescent specimens recommended.

Turn Around Time: Routinely batch tested once per week. Positive results are telephoned to the submitter.

NOTE: *Brucella* serology testing will be automatically performed on all requests for Tularemia serology due to antigen cross reactivity.

CPT Code: 86668 (Tularemia)

Price: \$19.00

86622 (*Brucella*)

Price: \$19.00

Total Price: \$36.00

Transport Temperature: Ambient

**Fungal Culture Isolation/Identification**

Specimen Requirements: Send original specimens in a sterile container. Send cutaneous specimens dry. Send fungal isolates on an agar slant. [See specific instructions.](#)

Turn Around Time: Primary specimen cultures are monitored for 4 weeks prior to a negative report.

CPT Codes:

87101 (culture, skin)

87103 (culture, blood)

87106 (ID, yeast)

87107 (ID, mold)

87102 (culture, other)

Price: \$36.75 Each

Price: \$15.75 Each

Price: \$15.75 Each

Transport Temperature: Ambient

**Fungal Serology (Histo, Cocci, Blasto) by CF & Agar Gel**

Specimen Requirements: 2 mL serum

Referred to the Centers for Disease Control, Atlanta, Georgia

Turn Around Time: 3 to 6 weeks

CPT Code: 86698 (Histoplasma)

Price: \$25.00

86612 (Blastomyces)

86635 (Coccidioides)

Transport Temperature: Ambient

\*\*\***G**\*\*\*

**Gardnerella vaginalis Culture Isolation/ Identification (see [Bacterial Culture, Aerobic](#))**

**Giardia Detection (see [Ova and Parasite Exam](#))**

**Gonococcal Infections (see [Neisseria gonorrhoeae Culture Isolation](#))**

**Group A Streptococcus Screen (see [Streptococcus Screen for Group A](#))**

\*\*\***H**\*\*\*

**Haemophilus ducreyi Culture Isolation/ Identification**

Specimen Requirements: Saline or broth moistened swab from the base and undetermined margins of the chancroid lesion, smeared and sent on chocolate plate or placed in Cary-Blair transport.

Turn Around Time: Negative cultures are monitored for 14 days. Positive culture results are telephoned to the submitter.

CPT Code: 87081 (Culture screen)  
Price: \$32.75

Transport Temperature: Ambient

### **Haemophilus influenzae Culture Isolation/ Identification**

Specimen Requirements: Primary specimen or isolate on MTM or chocolate media.

Turn Around Time: 2 to 4 working days. Positive *H. influenzae* results from sterile sites are telephoned to the submitter.

NOTE: Serogrouping is routinely performed on *H. influenzae* isolates from sterile body sites such as blood or cerebral spinal fluid. Please submit all *H. influenzae* isolates from sterile body sites to the laboratory for serogrouping and storage for future epidemiologic purposes.

CPT Code: 87081 (culture)  
Price: \$32.75

87185 (beta lactamase)  
Price: \$6.30

Transport Temperature: Ambient

### **Haemophilus spp. Culture Isolation/ Identification (see Bacterial Culture, Aerobic)**

### **Hantavirus (Sin Nombre Virus) IgG + IgM Serology by EIA, capture EIA**

Specimen Requirements: 1 mL serum

Turn Around Time: Routinely batch tested once per week. Testing is available each working day, or on weekends and holidays as needed. Call ahead to notify the laboratory and to make arrangements. Positive and STAT results are telephoned to the submitter.

To qualify for STAT testing, all of the following criteria must be met:

1. The patient is hospitalized with an acute respiratory illness, typical of Hantavirus pulmonary syndrome (HPS).
2. The patient is critically ill.
3. The patient does not have any relevant underlying medical condition that could account for the symptoms (COPD, malignancy, immunosuppression, diabetes)
4. The onset of illness (date when prodromal symptoms such as low grade fever and myalgia were noted) is 3 or more days prior to serum sample collection. IgM antibody to SNV is usually not detectable until the patient develops shortness of breath.

CPT Code: 86790 (IgG)  
Price: \$46.75

86790 (IgM)  
Price: \$ 46.75

Total Price: \$93.50

Transport Temperature: Ambient

### **HCV (See Hepatitis C Screen)**

### **Hepatitis, Acute Panel by EIA (HAV IgM Ab, HBsAg, HBc IgM Ab, HCV)**

Specimen Requirements: 2 mL serum

Turn Around Time: Testing is routinely batch tested once per week, but may be available each working day as needed. Call ahead to notify the laboratory and to make arrangements if immediate testing is needed. Positive and STAT results are telephoned to the submitter.

CPT Code: 80074  
Price: \$120.78

86803 (Hep C)  
Price: \$36.25

86705 (HBcoreM)  
Price: \$31.50

86709 (HAVM)  
Price: \$31.50

87340 (HBsAg)  
Price: \$21.53

Transport Temperature: Ambient

### **Hepatitis A IgM Antibody (HAV IgM) by EIA**

Specimen Requirements: 1 mL serum

Turn Around Time: Testing is routinely batch tested once per week, but may be available each working day as needed. Call ahead to notify the laboratory and to make arrangements if immediate testing is needed. Positive and STAT results are telephoned to the submitter.

CPT Code: 86709

Price: \$31.50

Transport Temperature: Ambient

### **Hepatitis B Core IgM (HBc IgM) Antibody by EIA**

Specimen Requirements: 1 mL serum

Turn Around Time: Testing is routinely batch tested once per week, but may be available each working day as needed. Call ahead to notify the laboratory and to make arrangements if immediate testing is needed. Positive and STAT results are telephoned to the submitter.

CPT Code: 86705

Price: \$31.50

Transport Temperature: Ambient

### **Hepatitis B Core Total Antibody (HBc Total) by EIA**

Specimen Requirements: 1 mL serum

Turn Around Time: Testing is routinely batch tested once per week. Positive results are telephoned to the submitter.

NOTE: If this test is the only Hepatitis B serologic marker ordered, positive results will automatically be reflexed to a HBsAg and HBsAb test.

CPT Code: 86704

Price: \$36.25

Transport Temperature: Ambient

### **Hepatitis B Surface Antibody (HBsAb) by EIA (Quantitation)**

Specimen Requirements: 1 mL serum

Turn Around Time: Testing is routinely batch tested once per week.

CPT Code: 86706

Price: \$24.25

Transport Temperature: Ambient

### **Hepatitis B Surface Antigen (HBsAg) by EIA with reflex confirmation**

Specimen Requirements: 2 mL serum

Turn Around Time: Routinely batch tested once per week. Call ahead to notify the laboratory and to make arrangements if immediate testing is needed. Positive and STAT results are telephoned to the submitter.

NOTE: Confirmatory Neutralization testing will be automatically performed on all repeat reactive screens.

CPT Code: 87340 (HBsAg)

Price: \$21.53

Transport Temperature: Ambient

### **Hepatitis C (HCV) Antibody Confirmation, by RIBA**

This reflex test is used to confirm the presence of HCV antibody when Signal/CutOff (S/CO) ratios are <3.8.

Specimen Requirements: 1 mL serum

Referred to Commercial Reference Lab

Turn Around Time: 2 weeks

CPT Code: 86804

Price: \$84.00

Transport Temperature: Ambient

### **Hepatitis C (HCV) Antibody Screen by EIA with reflex confirmation**

Specimen Requirements: 2 mL serum

Turn Around Time: EIA screens routinely batch tested twice per week. Positive results are telephoned to the submitter.

NOTE: Reflex confirmatory testing (RIBA) is performed on all repeat reactive EIA screens with Signal/CutOff (S/CO) ratio <3.8. Confirmatory testing is not necessary on specimens with S/CO ratios of 3.8 or greater as the confirmation rate on these specimens is >95%.

CPT Code (screen): 86803

Price: \$36.25

For RIBA confirmation see specific listing below

Transport Temperature: Ambient

### **Herpes Simplex Virus (HSV) Type 1 and 2 Culture Isolation/Identification**

Specimen Requirements: Specimen in Microtest Transport Media, received within 48 hours of collection. [See collection instructions.](#)

Turn Around Time: Cultures are monitored for 7 days prior to a negative report. Positive results are telephoned to the submitter.

CPT Code: 87252 (culture)

Price: \$38.50

87253 (Virus ID)

Price: \$30.00

Transport Temperature: 2-8°C

### **Herpes Simplex Virus (HSV) Type 1 and 2 Direct Detection by DFA**

Specimen Requirements: Slide prepared from vigorously scraping the base of a fresh lesion with a Dacron swab. Smear specimen over a small (dime) sized circle on the microscope slide. Avoid excess blood contamination of the specimen. Fix slide with acetone prior to submission.

Turn Around Time: Performed each working day. Results are telephoned to the submitter.

NOTE: Traditional cell culture should also be performed. See Herpes Simplex Virus (HSV) Culture Isolation/ID

CPT Code: 87274 (HSV1 DFA)

Price: \$12.00

87273 (HSV2 DFA)

Price: \$12.00

Transport Temperature: Ambient

### **Herpes Simplex Virus, Type 1 and 2, Direct Detection by Real Time PCR**

Specimen Requirements: CSF, Cervical Swab or Lesion swab in Microtest Transport Media. [See specific instructions.](#)

Turn Around Time: 1 to 3 working days. Positive results are telephoned to the submitter.

CPT Code: 87529

Price: \$95.00

Transport Temperature: 2-8°C

**Herpes Simplex Virus (HSV), Type 1 and 2, IgG Serology by type specific EIA**

Specimen Requirements: 1 mL serum

Screen or paired acute and convalescent specimens

Turn Around Time: Routinely batch tested once per week. Significant results are telephoned to the submitter.

CPT Code: 86695 (HSV 1)

86696 (HSV 2)

Price: \$21.00

Price: \$21.00

Total Price: \$42.00

Transport Temperature: Ambient

**Herpes Zoster Virus Culture ([See Varicella Zoster Virus Culture](#))**

**Herpes Zoster Virus IgG Serology by EIA ([See Varicella Zoster Virus Serology](#))**

**Histoplasma Culture Isolation/ Identification ([see Fungal Culture](#))**

**Histoplasma Serology ([see Fungal Serology](#))**

**HIV - 1 Antigen by EIA**

Specimen Requirements: 2 mL serum

Referred to the Centers for Disease Control, Atlanta, Georgia

Turn Around Time: 4 to 6 weeks

CPT Code: 87390

Price: \$25.00

Transport Temperature: Ambient

**HIV-1/HIV-2 Multispot Rapid Test**

Specimen Requirements: 1 mL serum

Turn Around Time: Test performed as needed

NOTE: This test is used to differentiate HIV-1 and HIV-2 and is used in an algorithm when the HIV-1/2 Plus O Antibody EIA is repeat-reactive and the HIV-1 Western Blot is negative or indeterminate.

CPT Code: 86703-92

Price: \$47.25

Transport Temperature: Ambient

**HIV – 1 / 2 Plus O Antibody by EIA with reflex confirmation**

Specimen Requirements: 1 mL serum

Turn Around Time: EIA screens routinely tested several days each week; Western Blots performed as needed. Positive results are telephoned to the submitter.

NOTE: Reflex confirmatory Western Blot testing is performed on all repeat reactive EIA screens. Multispot testing will be performed to differentiate HIV-1 and HIV-2 when the HIV-1/2 Plus O Antibody EIA is repeat reactive and the HIV-1 Western Blot is negative or indeterminate.

CPT Code: 86703 (HIV Screen)

86689 (Western Blot)

86703-92 (Multispot)

Price: \$21.00

Price: \$121.25

Price: \$47.25

Transport Temperature: Ambient

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**Influenza A Sub-typing by Immunofluorescence**

Specimen Requirements: Influenza A virus isolate from cell culture. All Influenza A isolates are reflexed to typing for seasonal H1N1 2009 and H3 and H1 subtypes

Turn Around Time: Performed as needed. Results are telephoned to the submitter.

CPT Code: 87253 (Virus ID)

Price: \$30.00

Transport Temperature: 2-8°C

**Influenza A Sub-typing by Real Time PCR**

Specimen Requirements: Nucleic acid derived from a PCR specimen screened positive for Influenza A. Reflex testing is performed on all Influenza A positive specimens.

\*Testing is performed at no cost for epidemiological purposes.

Turn Around Time: Sub-typing is performed each working day. Results are telephoned to the submitter.

Price: Fee Waived\*

Transport Temperature: 2-8°C

**Influenza A and B Culture ([See Respiratory Virus Culture](#))**

**Influenza A and B Virus Direct Detection by Real Time PCR**

Specimen Requirements: Respiratory specimen in Microtest Transport Media. [See specific instructions.](#)

This test detects Influenza B and all subtypes of Influenza A, including seasonal 2009 H1N1, and H5 Avian Influenza. All Influenza A positive specimens will be reflexed to [real-time PCR subtyping](#).

Turn Around Time: 1 to 3 working days. Positive results are telephoned to the submitter.

CPT Code: 87798 x 2

Price: \$95.00 each

Transport Temperature: 2-8°C

**Influenza Isolate Susceptibility Testing and Characterization**

Specimen Requirements: Influenza A isolate in cell culture fluid. The laboratory routinely selects significant isolates for susceptibility testing and characterization.

\*Testing is performed at no cost for epidemiological purposes.

Referred to the Centers for Disease Control, Atlanta, Georgia

Turn Around Time: 6 to 8 weeks

Price: Fee Waived\*

Transport Temperature: 2-8°C

**Isospora Detection ([see Cryptosporidium / Cyclospora / Isospora Detection](#))**

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**KPC (*K. pneumoniae* Carbapenemase) (see Antimicrobial Resistant Bacteria Confirmation)**

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**Lead Testing (see Blood Lead)**

**Legionella pneumophila Groups 1-4 IgG Serology by Indirect Immunofluorescence**

Specimen Requirements: 1 mL serum

Paired acute and convalescent serum recommended (drawn approx. 4 to 6 weeks apart).

Turn Around Time: Routinely batched tested once per week. Positive results are telephoned to the submitter.

CPT Code: 86713

Price: \$21.00

Transport Temperature: Ambient

**Legionella pneumophila Groups 1-6 Direct Detection by Immunofluorescence**

Specimen Requirements: Nasopharyngeal (NP) or Throat swab smeared on microscope slide, or primary specimen as above.

Turn Around Time: Performed each working day. Positive results are telephoned to the submitter.

CPT Code: 87278

Price: \$24.25

Transport Temperature: Ambient

**Legionella spp. Culture Isolation/ Identification**

Specimen Requirements: Submit fresh or frozen lung tissue, pleural fluid, bronchial washings, trans-tracheal aspirates, chest drainage, BAL, or sputum. Put a minimum of 1 mL specimen in a sterile, leak-proof container, and transport on ice in an insulated container.

Turn Around Time: DFA test performed each working day. Positive test results are telephoned to the submitter. Cultures are monitored for 14 working days before reporting as negative.

NOTE: Both a DFA test and culture is performed on each primary specimen received.

CPT Code: 87081 (Culture screen)

Price: \$32.75

87278 (DFA)

Price: \$24.25

87077 (Each add'l ID)

Price: \$18.25

Transport Temperature: 2-8°C

**Leishmania Detection**

Specimen Requirements: Lesion smear of tissue

Referred to the Centers for Disease Control, Atlanta, Georgia

Turn Around Time: 3 to 6 weeks

CPT Code: 87207

Price: \$25.00

Transport Temperature: Ambient

**Leishmania Serology by IFA**

Specimen Requirements: 2 mL serum

Referred to the Centers for Disease Control, Atlanta, Georgia  
Turn Around Time: 3 to 6 weeks

CPT Code: 86717  
Price: \$25.00

Transport Temperature: Ambient

**Leptospira Serology by INDX Dip-S-Ticks or IgM EIA**

Specimen Requirements: 2 mL serum  
Paired acute and convalescent serum specimens are recommended.

Referred to the Centers for Disease Control, Atlanta, Georgia  
Turn Around Time: 3 to 6 weeks

CPT Code: 86720  
Price: \$25.00

Transport Temperature: Ambient

**Listeria Culture Isolation/ Identification ([see Bacterial Culture, Aerobic](#))**

**Lyme Disease Culture ([see Borrelia burgdorferi culture](#))**

**Lyme Disease Serology ([see Borrelia burgdorferi serology](#))**

**Lymphogranuloma venereum (LGV) Culture ([see Chlamydia spp. Culture](#))**

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**Malaria Detection/ Identification ([see Plasmodium Detection](#))**

**Malaria Serology ([see Plasmodium Serology](#))**

**Measles Culture ([see Rubeola Culture](#))**

**Measles Serology ([see Rubeola Serology](#))**

**Meningococcal Infection ([see Neisseria spp. including N. meningitidis Culture](#))**

**Methicillin Resistant Staphylococcus aureus (MRSA) ([see Antimicrobial Resistant Bacteria Confirmation](#))**

**Modified Acid Fast Stain**

Specimen Requirements: Send specimens in sterile container. Add sterile saline or broth to tissues or other non-liquid specimens. Send isolates on LJ medium.

Turn Around Time: 1 to 2 working days. Positive results will be called to the submitter.

CPT Codes: 87206 (smear)  
Price: \$14.50

Transport Temperature: Ambient

**Mold Culture Isolation/ Identification ([see Fungal Culture](#))**

**MRSA ([see Antimicrobial Resistant Bacteria Confirmation](#))**

### **Mumps Culture Isolation/Identification**

Specimen Requirements: Saliva, Urine in Microtest Transport Media, received within 48 hours of collection. [See collection instructions.](#)

Contact the laboratory if molecular testing is requested.

Turn Around Time: Cultures are monitored for 2 weeks prior to a negative report. Positive results are telephoned to the submitter.

CPT Code: 87252 (culture)  
Price: \$38.50

87253 (Virus ID) Each add'l ID  
Price: \$30.00

Transport Temperature: 2-8°C

### **Mumps IgG Serology by EIA**

Specimen Requirements: 1 mL serum  
Screen or paired acute and convalescent specimens

Turn Around Time: Routinely batch tested once per week. Positive results are telephoned to the submitter.

CPT Code: 86735  
Price: \$21.00

Transport Temperature: Ambient

### **Mumps IgM Serology by IFA**

Specimen Requirements: 1 mL serum  
Collect specimen two (2) days after onset of illness and include date of onset.

Turn Around Time: Performed each working day, as needed. IgM results are telephoned to the submitter.

CPT Code: 86735  
Price: \$21.00

Transport Temperature: Ambient

### **Mycobacterium spp. Culture Isolation/ Identification**

Specimen Requirements: Send specimens in sterile container. Add sterile saline or broth to tissues or other non-liquid specimens. Send isolates on LJ medium or in liquid media vials. [See specific instructions.](#)

Turn Around Time: Smear reports are faxed to submitter by 5 p.m. the same day specimen is processed. Positive results are telephoned to the submitter; cultures are monitored for 6 weeks prior to negative report. Cultures positive for *Mycobacterium tuberculosis* complex will be reflexed for [Mycobacterium tuberculosis complex Antimicrobial Susceptibility Testing.](#)

NOTE: After a patient has tested positive for *M. tuberculosis*, no more than three specimens per week from the same body site will be processed to determine response to therapy and infectious status, without prior consultation. To determine response to therapy, specimens should be obtained no sooner than 7 days post initiation of therapy.

CPT Codes: 87206 (smear)  
Price: \$14.50

87116 (culture)  
Price: \$32.75

87015 (concentration)  
Price: \$15.25

87176 (tissue digestion)  
Price: \$9.00

Transport Temperature: Ambient

### **Mycobacterium spp. Identification by Nucleic Acid Probe**

Specimen Requirements: Isolates sent on LJ slants or in liquid media vials, or as reflex testing on positive primary specimens submitted for culture.

Turn Around Time: 1 to 3 working days for submitted isolates, others dependent on growth rate.

NOTE: On initial isolation of an AFB from a new patient, both *M. tuberculosis* complex and *M. avium* complex probes will be run on the isolate. After *M. tuberculosis* complex has been confirmed in the patient, subsequent cultures received during the next six weeks will only be probed for *M. tuberculosis* complex.

CPT Code: 87555 (*M. tuberculosis*)

87560 (*M. avium* probe)

87550 (*M. gordonae* or *M. kansasii*)

Price: \$29.50 each

Transport Temperature: Ambient

### **Mycobacterium tuberculosis complex Antimicrobial Susceptibility Testing**

Specimen Requirements: Isolates sent on LJ slants or in liquid media vials, or primary specimens submitted for culture. Reflex testing is performed on *Mycobacterium tuberculosis* complex isolates identified in this laboratory.

Agents tested: Isoniazid (two concentrations), Rifampin, Ethambutol and PZA.

Turn Around Time: 7 to 14 working days from date susceptibility testing is begun.

NOTE: Susceptibility testing for *M. tuberculosis* will be performed only on the first isolate from the patient, and will be repeated on subsequent isolates from specimens received 2 months after initiation of therapy. Other susceptibility testing, including molecular drug susceptibility testing or second line drug testing is available upon consultation.

CPT Code: 87190 X 5

Price: \$14.75 each

Total Price: \$73.75

Transport Temperature: Ambient

### **Mycobacterium tuberculosis complex Direct Detection by Nucleic Acid Amplification**

Specimen Requirements: Processed concentrated specimen or primary respiratory specimen. [See specific instructions.](#)

Turn Around Time: 1 to 3 working days. Call ahead to make testing arrangements. Results are telephoned to the submitter.

NOTE: The submitter of an AFB smear positive respiratory specimen will be contacted by the laboratory and offered the direct nucleic acid amplification test for *M.tuberculosis* complex (MTD Test).

Testing will also be performed on culture negative specimens if the index of suspicion of Tuberculosis is high.

CPT Code: 87556

Price: \$183.75

Transport Temperature: Ambient

### **Mycology Culture (see Fungal Culture)**

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### **Neisseria gonorrhoeae Culture Isolation/ Identification**

Specimen Requirements: Primary culture or isolate on MTM or chocolate media; identification performed by Nucleic Acid Probe.

Turn Around Time: 2 to 3 working days. Positive results are telephoned to the submitter.

NOTE: For public health surveillance, please submit all *N. gonorrhoeae* isolates to the laboratory. This is at no cost to the submitter (See Culture for Storage).

CPT Code: 87081 (Culture screen)

Price: \$32.75

87590 (ID)

Price: \$29.50

87185 (beta lactamase)  
Transport Temperature: Ambient

Price: \$6.30

**Neisseria gonorrhoeae Direct Detection by Nucleic Acid Amplification**

Specimen Requirements: Endocervical, male urethral, throat or rectal swab in APTIMA Uni-Sex Swab Specimen Collection Tube, vaginal swab in APTIMA Vaginal Specimen Collection Tube, or urine in APTIMA Urine Specimen Collection Tube. [See specific instructions.](#)

Turn Around Time: Routinely tested each working day. Positive results are telephoned to the submitter.

NOTE: Can be run in tandem with *Chlamydia trachomatis* Direct Detection by Amplification (see Combination Amplification Test).

CPT Code: 87591  
Price: \$44.00

Transport Temperature: 2-30°C

**Neisseria spp. (including *N. meningitidis*) Culture Isolation /Identification/Typing**

Specimen Requirements: Primary specimen or isolate on MTM or chocolate media

Turn Around Time: 2 to 4 working days. Positive *N. meningitidis* results are telephoned to the submitter.

NOTE: Serogrouping is routinely performed on *N. meningitidis* isolates from sterile body sites such as blood or cerebral spinal fluid. Please submit all *N. meningitidis* isolates from sterile body sites to the laboratory for serogrouping and storage for future epidemiologic purposes.

CPT Code: 87081 (Culture screen)  
Price: \$32.75

87185 (beta lactamase)  
Price: \$6.30

Transport Temperature: Ambient

**Newborn Screening Panel**

Specimen Requirements: Dried Blood Spots. [See collection instructions.](#)

Total Price: \$96.25

Turn Around Time: 3 to 5 working days. Abnormal results are telephoned to the submitter. Contact the laboratory for further information.

Transport Temperature: Ambient

<b>Screening Tests</b>	<b>CPT Code</b>	<b>Price</b>
Acylcarnitine Disorders by Tandem Mass Spectrometry (MS/MS)* Fatty Acid Oxidation Disorders Carnitine Uptake Defect Long Chain L-3-Hydroxyacyl CoA Dehydrogenase Deficiency (LCHAD) Medium Chain Acyl-CoA Dehydrogenase Deficiency (MCAD) Trifunctional Protein Deficiency (TFP) Very Long Chain Acyl-CoA Dehydrogenase Deficiency (VLCAD) Organic Acidemia Disorders 3-OH 3-CH3 Glutaric Aciduria 3-Methylcrotonyl-CoA Carboxylase Deficiency β-ketothiolase Deficiency Glutaric Acidemia Type I Isovaleric Acidemia Methylmalonic Acidemia (Cbl A and B) Methylmalonic Acidemia (mutase deficiency) Multiple CoA Carboxylase Deficiency (MCD) Propionic Acidemia	82017	\$11.75
Amino Acid Disorders by Tandem Mass Spectrometry (MS/MS)* Argininosuccinic acidemia Citrullinemia Homocystinuria (due to CBS deficiency) Maple syrup urine disease Tyrosinemia type I	82136	\$4.65
Biotinidase*	82261	\$6.00
Classic Galactosemia	82775	\$13.90
Congenital Adrenal Hyperplasia (CAH)* 21 hydroxylase deficiency	83498	\$11.50
Congenital Hypothyroidism (CH) Thyroxine (T4) testing	84437	\$12.45
Cystic Fibrosis (IRT)	83516	\$12.00
Phenylketonuria (PKU)	84030	\$12.50
Hemoglobinopathies by Isoelectric Focusing Hb <b>S/B</b> -thalassemia Hb <b>SC</b> disease Hb <b>SS</b> disease (Sickle cell anemia)	83020	\$11.50

\* Tests referred to the Wisconsin State Newborn Screening Laboratory

Note: Reflex confirmatory TSH testing is performed on all T4 results that are less than 10 ug/dL  
 Reflex confirmatory HPLC testing is performed on all abnormal hemoglobinopathy screens.

<b>Confirmatory Tests</b>	<b>CPT Code</b>	<b>Price<sup>#</sup></b>
Hemoglobinopathies by HPLC*	87143	\$34.75
Thyroid Stimulating Hormone (TSH)	84443	\$10.50

<sup>#</sup> Not included in total cost of routine testing panel.

### **Nocardia spp. Culture Isolation/ Identification** [\(see Fungal Culture\)](#)

#### **Nocardia spp. Serology**

Specimen Requirements: 2 mL serum

Referred to the Centers for Disease Control, Atlanta, Georgia  
 Turn Around Time: 3 to 6 weeks.

CPT Code: 86744  
 Price: \$25.00

Transport Temperature: Ambient

### **Norovirus Direct Detection by Nucleic Acid Amplification**

Specimen Requirements: 2 mL stool in a sterile container. [See specific instructions.](#)

Turn Around Time: 1 to 3 working days. Positive results are telephoned to the submitter.

CPT Code: 87798

Price: \$95.00

Transport Temperature: 2-8°C

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### **Orthopoxvirus, including Variola (Smallpox), Direct Detection by Real Time PCR**

Specimen Requirements: Lesion swab in Microtest Transport Media plus an additional lesion swab transported dry in a sterile container. Call the laboratory for special instructions regarding environmental samples.

A suspect Orthopoxvirus requires Infectious Disease packaging (Class 6.2) and trackable shipping. Please notify the laboratory by telephone at time of shipment.

Turn Around Time: 1 to 3 working days. Results are telephoned to the submitter.

CPT Code: 87798

Price: Fee Waived

Transport Temperature: 2-8°C

### **Orthopoxvirus, Other Than Variola, Direct Detection by Real Time PCR**

Specimen Requirements: Lesion swab in Microtest Transport Media plus an additional lesion swab transported dry in a sterile container. [See specific instructions.](#)

Turn Around Time: 1 to 3 working days. Results are telephoned to the submitter.

CPT Code: 87798

Price: Fee Waived

Transport Temperature: 2-8°C

### **Ova and Parasite Exam**

Specimen Requirements: Stool transported in tubes containing Formalin and PVA. Collect stool into a clean specimen container. Using the spoon inside the transport material, immediately transfer about 1 teaspoon of stool to a vial of 10% buffered formalin, and then transfer a similar quantity of stool to a vial containing PVA. Stool should be emulsified into the transport media. Formalin and PVA transport kits are available from the laboratory upon request.

For optimal recovery, a series of 3 specimens should be submitted.

Turn Around Time: 1 to 2 working days. Positive results are telephoned to the submitter.

CPT Code: 87177 (concentration/ID)

Price: \$21.75

87209 (Trichrome stain)

Price: \$21.75

Total Price: \$43.50

Transport Temperature: Ambient

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### **Paragonimus Detection**

Specimen Requirements: Lung tissue

Referred to the Centers for Disease Control, Atlanta, Georgia  
Turn Around Time: 3 to 6 weeks

CPT Code: 87207  
Price: \$25.00

Transport Temperature: 2-8°C

### **Paragonimus Serology**

Specimen Requirements: 2 mL serum

Referred to the Centers for Disease Control, Atlanta, Georgia  
Turn Around Time: 3 to 6 weeks

CPT Code: 86317  
Price: \$25.00

Transport Temperature: Ambient

### **Parainfluenza Types 1 - 3 Culture ([See Respiratory Virus Isolation](#))**

### **Parasite Detection ([see Ova and Parasite Exam](#))**

### **Paratyphoid Fever ([see Salmonella spp.](#))**

### **Parvovirus Serology IgG & IgM by EIA**

Specimen requirements: 2 mL serum

Referred to the Oregon State Public Health Laboratory, Salem, OR  
Turn Around Time: 2 to 4 weeks

CPT Code: 86747  
Price: \$25.00

Transport Temperature: Ambient

### **Pasteurella spp. Culture Isolation/ Identification ([see Bacterial Culture, Aerobic](#))**

### **Penicillium spp. Culture Isolation/ Identification ([see Fungal Culture](#))**

### **Pertussis ([see Bordetella pertussis](#))**

### **Phenylalanine Monitor by Fluorescent Immunoassay**

Specimen Requirements: Dried Blood Spots. [See collection instructions.](#)

Used to monitor levels in patients diagnosed with phenylketonuria (PKU)

Turn Around Time: 1 to 2 working days. All PKU Monitor results are telephoned to the clinician of record.

CPT Code: 84030  
Price: Fee Waived. Phone the laboratory for more information.

Transport Temperature: Ambient

### **Pinworm Examination (*Enterobius vermicularis*)**

Specimen Requirements: Microscopic identification of eggs collected in the perianal area is the method of choice for diagnosing enterobiasis. In the morning, before defecation and washing, press transparent adhesive tape ("Scotch test") on the perianal skin and then place the tape on a slide. Alternatively, the tape can be attached to the glass slide in a loop, and then folded over the glass surface after application to the perianal skin.

Turn Around Time: 1 to 2 working days. Positive results are telephoned to the submitter.

CPT Code: 87177 (concentration/ID)

Price: \$21.25

Transport Temperature: Ambient

**Plague (see *Yersinia pestis* Culture Isolation)**

**Plasmodium Detection**

Specimen Requirements: Blood smear, thick and thin; unstained or stained with Giemsa or Wright's Stain, and whole blood in EDTA tube (for possible PCR testing).

Turn Around Time: 1 to 2 working days. Positive samples for confirmation and specimens for PCR testing are referred to the Centers for Disease Control, Atlanta, Georgia.

CPT Code: 87207

Price: \$29.00

Transport Temperature: Ambient

**Plasmodium Serology by IFA**

Specimen Requirements: 2 mL serum

Referred to the Centers for Disease Control, Atlanta, Georgia

Turn Around Time: 2 to 4 weeks

NOTE: Serology is performed only on patients whose blood slides are repeatedly negative, and have compatible travel history.

CPT Code: 86750

Price: \$25.00

Transport Temperature: Ambient

**Pneumococcal Infection (see *Streptococcus pneumoniae*)**

**Premarital Testing (see Rubella IgG Serology)**

***Pseudomonas* spp. Culture Isolation/ Identification (see Bacterial Culture, Aerobic)**

**Pulsed Field Gel Electrophoresis (PFGE) for Enterics**

Specimen Requirements: Send *Salmonella* spp., *Shigella* spp., toxin-producing *E. coli*, *Listeria* spp., and *Vibrio* isolates on solid media or on swab in Cary-Blair transport medium.

\*Testing is performed at no cost for epidemiological purposes.

For public health surveillance, please submit all isolates of *Salmonella* spp., *Shigella* spp., toxin-producing *E. coli*, *Listeria* spp., and *Vibrio*. *Campylobacter* spp. isolates are also encouraged when multiple isolates are identified.

CPT Code: None

Price: Fee Waived\*

Transport Temperature: Ambient

**Pulsed Field Gel Electrophoresis (for other organisms)**

Specimen Requirements: Send non-fastidious Gram negative rods or Gram positive isolates on solid media or on swab in Cary-Blair transport medium.

NOTE: Minimum of 3 isolates required. Please contact the laboratory in advance regarding availability of testing for that isolate, and for the necessary number of isolates.

CPT Codes: 83890 (molecular extraction)  
Price: \$34.50

83894 (enzymatic separation by gel electrophoresis)  
Price: \$26.50

83892 (enzymatic digestion)  
Price: \$26.50

83912 (interpretation and report)  
Price: \$26.50

Total Price: \$114.00 per isolate

Transport Temperature: Ambient

**\*\*\*Q\*\*\***

**Q Fever (*Coxiella burnetti*) Phase 1 and 2 IgG Serology by Indirect Immunofluorescence**

Specimen Requirements: 1 mL serum

Paired acute and convalescent serum specimens are recommended.

Turn Around Time: Routinely batch tested once per week. Positive results are telephoned to the submitter.

CPT Code: 86638  
Price: \$21.00

Transport Temperature: Ambient

**QuantiFERON – Gold (QFT – Gold) In-Tube Testing**

This assay is an in vitro test for the determination of latent Tuberculosis infection and can be used as an alternative to the TB skin test (PPD).

Specimen Requirements: Stimulated plasma, obtained from vacutainer tubes specifically coated with antigens. Requires access to a 37°C incubator. Contact the laboratory for further information and specimen collection instructions and supplies. See [collection instructions](#).

Special pricing may be available when performing batch testing for one facility. Batch testing is defined as 20 or more specimens submitted from the same facility at the same time. Please call the laboratory for additional information or pricing.

CPT Code: 86480  
Price: \$91.00

Transport Temperature: Ambient

**\*\*\*R\*\*\***

**Rabies Detection for Diagnostic Purposes (Animal Testing)**

Animal Testing - Not performed by our laboratory.

Refer specimens to the Veterinary Diagnostic Laboratory in Bozeman, (406) 994-4885

**Rabies Detection for Diagnostic Purposes (Human Testing)**

Human Testing for Diagnostic Purposes - Consult the laboratory for specific sampling requirements and proper handling and transport. Consult with the Epidemiology Section (406) 444-0274

Human Diagnostic Testing is referred to the Centers for Disease Control, Atlanta, Georgia.

Turn Around Time: Preliminary results (PCR) are available as soon as possible, usually the same day as receipt.

CPT Code: None  
Price: Fee Waived

Transport Temperature: Call for instructions

## **Rabies Serology for Immune Status Antibody Testing by RFFIT**

Testing not available through this laboratory

Testing available from:

Atlanta Health Associates, Alpharetta, Georgia (770) 667-8023

<http://www.atlantahealth.net>

Kansas State University, Manhattan, KS (785) 532-4483

<http://www.vet.ksu.edu/depts/dmp/service/rabies/index.htm>

## **Respiratory Syncytial Virus (RSV) Culture (See Respiratory Virus Culture)**

### **Respiratory Syncytial Virus (RSV) Direct Detection by Direct Fluorescence Assay**

Specimen Requirements: Nasal washings or Nasopharyngeal (NP) swab in Microtest Transport Media. [See collection instructions.](#)

Turn Around Time: Performed each working day. Results are telephoned to the submitter.

CPT Code: 87280

Price: \$24.25

Transport Temperature: 2-8°C

### **Respiratory Virus Culture Isolation/Identification**

Specimen Requirements: Throat or NP Swab, Nasal or Bronchial Washings, BAL in Microtest Transport Media, received within 48 hours of collection. [See collection instructions.](#)

Turn Around Time: Cultures are monitored for 2 weeks prior to reporting as negative. Positives results are telephoned to the submitter.

NOTE: Respiratory specimens for virus isolation are screened for the presence of the following commonly isolated viruses: Adenovirus, Influenza A, Influenza B, Parainfluenza Type 1, 2, and 3, Respiratory Syncytial Virus, Enterovirus (including Echovirus and Coxsackie A & B), and Herpes Simplex Virus.

CPT Code: 87252 (culture)

Price: \$38.50

87253 (Virus ID) Each add'l ID

Price: \$30.00

Transport Temperature: 2-8°C

### **Ricin Rapid Tests**

Specimen Requirements: Environmental samples only

Turn Around Time: 1 to 3 working days. Call the laboratory prior to sending sample. Results are telephoned to the submitter.

CPT Code: None

Price: Fee Waived

Transport Temperature: Ambient

## **Rickettsial Serology (see [Rocky Mountain Spotted Fever](#), [Typhus Fever Serology](#))**

### ***Rochalimea* spp. Culture Isolation/ Identification (see [Bartonella](#) spp. Culture)**

### ***Rochalimea* spp. Serology (see [Bartonella](#) Serology)**

### **Rocky Mountain Spotted Fever (RMSF) IgG Serology by Indirect Immunofluorescence**

Specimen Requirements: 1 mL serum

Paired acute and convalescent serum recommended.

Turn Around Time: Routinely batch tested once per week. Positive results are telephoned to the submitter.

NOTE: Colorado Tick Fever testing will be automatically performed on all requests for Rocky Mountain Spotted Fever.

CPT Codes: 86757 (RMSF)

86790 (CTFV)

Price: \$21.00

Price: \$21.00

Total Price: \$42.00

Transport Temperature: Ambient

**RSV (see Respiratory Syncytial Virus [Direct Detection](#) or [Culture](#))**

**Rubella IgG Serology by EIA**

Specimen Requirements: 1 mL serum

Screen or paired acute and convalescent specimens

For premarital testing for Rubella immunity, download instructions and electronic forms at  
<http://www.dphhs.mt.gov/publichealth/lab/environmental/documents/premaritalcertfillable.pdf>

Turn Around Time: Routinely batch tested once per week. Significant results are telephoned to the submitter.

CPT Code: 86762

Price: \$21.00

Transport Temperature: Ambient

**Rubella IgM Serology by Indirect Immunofluorescence**

Specimen Requirements: 1 mL serum.

Collect specimen at least two (2) days after onset of rash, and include date of onset.

Turn Around Time: Performed each working day, as needed. Results are telephoned to the submitter.

CPT Code: 86762

Price: \$21.00

Transport Temperature: Ambient

**Rubeola (Measles) Culture Isolation/Identification**

Specimen Requirements: Throat or NP Swab in Microtest Transport Media, received within 48 hours of collection. [See collection instructions.](#)

Turn Around Time: Cultures are monitored for 2 weeks prior to reporting as negative. Positive results are telephoned to the submitter.

CPT Code: 87252

Price: \$38.50

87253 (Virus ID) Each add'l ID

Price: \$30.00

Transport Temperature: 2-8°C

**Rubeola (Measles) IgG Serology by EIA**

Specimen Requirements: 1 mL serum

Screen or paired acute and convalescent specimens.

Turn Around Time: Routinely batch tested once per week. Significant results are telephoned to the submitter.

CPT Code: 86765

Price: \$21.00

Transport Temperature: Ambient

**Rubeola (Measles) IgM Serology by Indirect Immunofluorescence**

Specimen Requirements: 1 mL serum

Collect specimen at least two (2) days after onset of rash, and include date of onset.

Turn Around Time: Performed each working day, as needed. Results are telephoned to the submitter.

CPT Code: 86765

Price: \$21.00

Transport Temperature: Ambient

**\*\*\*S\*\*\***

**Salmonella spp. (including *S. typhi*) Culture Isolation/Identification**

Specimen Requirements: Stool in Cary-Blair transport or other commercial enteric transport media, or isolate in Cary Blair transport or on solid media. See Enteric Panel for specific instructions.

Biochemically confirmed *Salmonella* spp. will be serotyped for epidemiologic purposes at no additional cost.

For public health surveillance, please submit all isolates of *Salmonella* spp. to the laboratory. [See Enteric Isolate Surveillance.](#)

Turn Around Time: 2 to 4 working days. Positive identification results are telephoned to the submitter.

CPT Code: 87045 (Culture ID)

Price: \$13.75

87077 (Each add'l ID)

Price: \$18.25

Transport Temperature: 2-8°C for stool, ambient for isolates

**Shigella spp. Culture Isolation/Identification**

Specimen Requirements: Stool in Cary-Blair Transport, or other commercial enteric transport media, isolate in Cary Blair transport or on solid media. See Enteric Panel for specific instructions.

For public health surveillance, please submit all isolates of *Shigella* spp. to the laboratory. [See Enteric Isolate Surveillance.](#)

Turn Around Time: 2 to 4 working days. Positive results are telephoned to the submitter.

CPT Code: 87045 (Culture ID)

Price: \$13.75

87077 (Each add'l ID)

Price: \$18.25

Transport Temperature: 2-8°C for stool, ambient for isolates

**Schistosoma Detection**

Specimen Requirements: Stool in formalin/PVA transports or urine in leak-proof sterile container

Turn Around Time: 1 to 2 working days. Positive samples are referred for confirmation to the Centers for Disease Control, Atlanta, Georgia

CPT Code: 87177(Conc. ID)

Price: \$21.75

88313 (Trichrome)

Price: \$21.75

Transport Temperature: Ambient for stool, 2-8°C for urine

**Sin Nombre Virus (see Hantavirus Serology)**

**Sporothrix Culture Isolation/ Identification (see Fungal Culture) Schistosoma Serology by FAST-ELISA**

Specimen Requirements: 2 mL serum

Referred to the Centers for Disease Control, Atlanta, Georgia

Turn Around Time: 3 to 6 weeks

CPT Code: 86682  
Price: \$25.00

Transport Temperature: Ambient

**Sporothrix Serology by Latex and/or Tube Agglutination**

Specimen Requirements: 2 mL serum

Referred to the Centers for Disease Control, Atlanta, Georgia  
Turn Around Time: 3 to 6 weeks

CPT Code: 86317  
Price: \$25.00

Transport Temperature: Ambient

**Staphylococcus spp. Culture Isolation/ Identification** ([see Bacterial Culture, Aerobic](#))

**Staphylococcus Enterotoxin B Rapid Tests**

Specimen Requirements: Environmental samples only

Turn Around Time: 1 to 3 working days. Call the laboratory prior to sending sample. Results are telephoned to the submitter.

CPT Code: None  
Price: Fee Waived

Transport Temperature: Ambient

**STEC** ([see Escherichia coli Shiga-Like Toxin Assay or Enteric Panel](#))

**St. Louis Encephalitis IgM Serology by EIA**

This test may be ordered individually. Due to the cross-reactivity of West Nile Virus (WNV) and St Louis Encephalitis Virus (SLE), SLE serology may be performed on specimens with a borderline WNV test result.

Specimen Requirements: 2 mL serum and/or 1 mL CSF  
Date of onset is required, and the city or county of patient's residence is requested.

Referred to the Centers for Disease Control in Fort Collins, Colorado  
Turn Around Time: 4 to 6 weeks

CPT Code: 86653  
Price: \$25.00

Transport Temperature: Ambient

**Stool Culture** ([see Enteric Panel](#))

**Streptococcus Group A Screen, Culture Method**

Specimen Requirements: Throat swab in silica gel

Turn Around Time: Cultures are monitored for 2 working days prior to reporting as negative. Positive results are telephoned to the submitter

CPT Code: 87081 (Culture screen)  
Price: \$32.75

Transport Temperature: Ambient

**Streptococcus pneumoniae Culture Isolation/ ID** ([see Bacterial Culture, Aerobic](#))

**Streptococcus spp. Culture Isolation/ Identification (see Bacterial Culture, Aerobic)**

**Strongyloides Detection (see Ova and Parasite Exam)**

**Strongyloides Serology by EIA**

Specimen Requirements: 2 mL serum

Referred to the Centers for Disease Control, Atlanta, Georgia  
Turn Around Time: 3 to 6 weeks

CPT Code: 86317  
Price: \$25.00

Transport Temperature: Ambient

**Syphilis Serology Screen (Qualitative) by VDRL**

Specimen Requirements: 2 mL serum or 1 mL CSF

Turn Around Time: Routinely batch tested twice per week. Positive results are reflexed to quantitative VDRL.

CPT Code: 86592  
Price: \$13.75

Transport Temperature: Ambient

**Syphilis Serology Screen (Quantitative) by VDRL**

Specimen Requirements: 2 mL serum or 1 mL CSF

Turn Around Time: Routinely batch tested twice per week. Significant results are telephoned to the submitter.

NOTE: Reflex confirmatory TP-PA testing is performed on all serum VDRL specimens with results of Reactive 2 dilutions or greater. Initial results of Weakly Reactive or Reactive 1 dil. should have a second specimen submitted.

CPT Code: 86593  
Price \$14.00

Transport Temperature: Ambient

**\*\*\*T\*\*\***

**Tick-borne Disease IgG Serology Panel (RMSF, CTFV, Q Fever, Tularemia and Brucella) by IFA, Bacterial Agglutination**

Specimen Requirements: 3 mL serum  
Paired acute and convalescent serum recommended.

Turn Around Time: Routinely batch tested once per week. Positive results are telephoned to the submitter. These tests may be ordered as a panel, but will be billed individually.

Note: Although not a tick-borne disease, Brucella testing is performed on all requests for Tularemia due to antigen cross reactivity.

CPT Codes: 86757 (RMSF)	86638 (Q-Fever)	86622 (Brucella)
Price: \$21.00	Price: \$21.00	Price: \$19.00
86790 (CTFV)	86668 (Tularemia)	Total Price: \$101.00
Price: \$21.00	Price: \$19.00	

Transport Temperature: Ambient

### **Tick-borne Relapsing Fever (see *Borrelia hermsii* Serology)**

#### **Torch Screen, IgG Only by EIA (Toxoplasma, CMV, Rubella, HSV Type 1 and 2)**

Specimen Requirements: 2 mL serum

Paired acute and convalescent serum recommended. For newborns, include mother's serum for baseline paired specimen.

Turn Around Time: Routinely batch tested once per week. Significant results are telephoned to the submitter. These tests may be ordered as a panel, but will be billed individually.

CPT Codes: 86777 (Toxo IgG) Price: \$21.00	86762 (Rubella IgG) Price: \$21.00	86696 (Herpes Simplex 2) Price: \$21.00
86644 (CMV IgG) Price: \$21.00	86695 (Herpes Simplex 1) Price: \$21.00	Total Price: \$105.00

Transport Temperature: Ambient

#### **Torch Screen, IgG + IgM by EIA (Toxoplasmosis G+M, CMV G+M, Rubella G+M, HSV IgG)**

Specimen Requirements: 2 mL serum; include date of onset.

Turn Around Time: Routinely batch tested once per week. IgM testing performed each working day, as needed. Positive IgM results are telephoned to the submitter. These tests may be ordered as a panel, but will be billed individually.

CPT Codes: 86777 (Toxo G) Price: \$21.00	86695 (HSV 1) Price: \$21.00	86645 (CMV M) Price: \$37.25
86644 (CMV G) Price: \$21.00	86696 (HSV 2) Price: \$21.00	86762 (Rubella M) Price: \$21.00
86762 (Rubella G) Price: \$21.00	86778 (Toxo M) Price: \$37.25	Total Price: \$200.50

Transport Temperature: Ambient

#### **Toxic Screen, Rapid Chemical Exposure**

Call ahead for information on proper collection, packaging, and transport and shipment of blood and urine specimens. Prior arrangements must be made with the laboratory.

Referred to the Centers for Disease Control, Atlanta, Georgia

Turn Around Time: 36 hours

CPT Code: None  
Price: Fee Waived

#### **Toxocara Serology by EIA**

Specimen Requirements: 2 mL serum

Referred to the Centers for Disease Control, Atlanta, Georgia

Turn Around Time: 3 to 6 weeks

CPT Code: 86317  
Price: \$25.00

Transport Temperature: Ambient

#### **Toxoplasmosis IgG Serology by EIA**

Specimen Requirements: 1 mL serum

Screen or paired acute and convalescent specimens

Turn Around Time: Routinely batch tested once per week. Positive results are telephoned to the submitter.

CPT Code: 86777

Price: \$21.00

Transport Temperature: Ambient

**Toxoplasmosis IgM Serology by Indirect Immunofluorescence**

Specimen Requirements: 1 mL serum

Turn Around Time: Testing performed each working day, as needed. Results are telephoned to the submitter.

CPT Code: 86778

Price: \$37.25

Transport Temperature: Ambient

***Treponema pallidum* (See [Syphilis Serology](#) or [Treponema pallidum Particle Agglutination Assay](#))**

**Treponema pallidum Particle Agglutination Assay**

Specimen Requirements: 2 mL serum

Turn Around Time: Routinely batch tested once per week. Positive results are telephoned to the submitter.

CPT Code: 86780

Price: \$33.75

Transport Temperature: Ambient

**Trichinella Serology**

Specimen Requirements: 2 mL serum

Referred to the Centers for Disease Control, Atlanta, Georgia

Turn Around Time: 3 to 6 weeks

CPT Code: 86784

Price: \$25.00

Transport Temperature: Ambient

**Trypanosomiasis Serology (including *Trypanosoma cruzi* / Chagas Disease)**

Specimen Requirements: 2 mL serum

Referred to the Centers for Disease Control, Atlanta, Georgia

Turn Around Time: 3 to 6 weeks

CPT Code: 86682

Price: \$25.00

Transport Temperature: Ambient

**Trypanosomiasis Detection (including *Trypanosoma cruzi* / Chagas Disease)**

Specimen Requirements: Blood smear, unstained or stained with Wright's or Giemsa.

Turn Around Time: 1 to 2 working days. Positive smears are referred for confirmation to the Centers for Disease Control, Atlanta, Georgia

CPT Code: 87207

Price: \$29.00

Transport Temperature: Ambient

**Tuberculosis (See [Mycobacterium spp.](#))**

**Tularemia Culture (See [Francisella tularensis](#) culture)**

**Tularemia Serology (See [Francisella tularensis](#) serology)**

**Typhoid Fever (see [Enteric Panel](#) or [Salmonella spp.](#))**

**Typhus Fever IgG Serology by Indirect Immunofluorescence**

Specimen Requirements: 2 mL serum

Paired acute and convalescent serum specimens are recommended.

Referred to the Centers for Disease Control, Atlanta, Georgia

Turn Around Time: 3 to 6 weeks

CPT Code: 86256

Price: \$25.00

Transport Temperature: Ambient

**\*\*\*U\*\*\***

**\*\*\*V\*\*\***

**Vancomycin Resistant Enterococci (VRE) (See [Antimicrobial Resistant Bacteria Confirmation](#))**

**Varicella Zoster Virus (VZV) Direct Detection by Direct Fluorescence Assay**

Specimen Requirements: Slide prepared from vigorously scraping the base of a fresh lesion with a Dacron swab. Smear specimen over a small (dime) sized circle on the microscope slide. Avoid excess blood contamination of the specimen. Fix slide with acetone prior to submission.

Turn Around Time: Performed each working day. Positive results are telephoned to the submitter.

NOTE: Traditional cell culture should also be performed. See Varicella Zoster (Herpes Zoster) Virus Culture Isolation/ ID.

CPT Code: 87290

Price: \$24.25

Transport Temperature: Ambient

**Varicella Zoster Virus (VZV) Direct Detection by Real Time PCR**

Specimen Requirements: Vesicular lesion swab in Microtest Transport Media. [See specific instructions.](#)

Turn Around Time: 1 to 3 working days. Positive results are telephoned to the submitter.

CPT Code: 87798

Price: \$95.00

Transport Temperature: 2-8°C

**Varicella Zoster Virus (VZV) (Herpes Zoster Virus) IgG Serology by EIA**

Specimen Requirements: 1 mL serum

Screen or paired acute and convalescent specimens.

Turn Around Time: Routinely batch tested once per week; available each working day, as needed. Significant and STAT results are telephoned to the submitter.

To qualify for STAT testing, all of the following criteria must be met:

1. The patient is at high risk for complications and has been recently exposed to a known case of chickenpox. High risk patients are defined as immunocompromised persons, pregnant women, premature infants whose mothers are not immune, premature infants < 28 weeks gestation, and premature infants < 1000 grams at birth
2. The patient does not have a history of chicken pox and/or does not know their immune status.
3. Exposure has been recent enough that the 96-hour window for administration of VZIG is achievable if the testing determines the patient to be susceptible to VZV infection.

CPT Code: 86787

Price: \$21.00

Transport Temperature: Ambient

### **Varicella Zoster (VZV) (Herpes Zoster) Virus Culture Isolation/Identification**

Specimen Requirements: Specimen, usually vesicular fluid, in Microtest Transport Media, received within 48 hours of collection. [See collection instructions.](#)

Turn Around Time: Cultures are monitored for 1 month prior to a negative report. Positive results are telephoned to the submitter.

CPT Code: 87252 (culture)

Price: \$38.50

87253 (Virus ID) Each add'l ID

Price: \$30.00

Transport Temperature: 2-8°C

### **VDRL Serology (see Syphilis Serology)**

### **Vibrio spp. Culture Isolation/ Identification**

Specimen Requirements: Stool in Cary-Blair transport, or other commercial enteric transport media, or isolate submitted in Cary-Blair transport or on solid media. Specify agent on request form.

Turn Around Time: 2 to 4 working days. Positive results are telephoned to the submitter.

CPT Code: 87046 (Culture ID)

Price: \$13.75

87077 (Each add'l ID)

Price: \$18.25

Transport Temperature: 2-8°C for stool, ambient for isolates

### **Virus Culture Isolation/Identification**

Specimen Requirements: Specimen in Microtest Transport Media, received within 48 hours of collection. [See collection instructions.](#)

Turn Around Time: Cultures are monitored for 2 weeks prior to a negative report. Positive results are telephoned to the submitter.

NOTE: Specimens for virus isolation are screened for the presence of the following commonly isolated viruses: Adenovirus, Influenza A, Influenza B, Parainfluenza Type 1, 2, and 3, Respiratory Syncytial Virus, Enterovirus (including Coxsackie A & B and Echovirus) and Herpes Simplex Virus.

CPT Code: 87252 (culture)

Price: \$38.50

87253 (Virus ID) Each add'l ID

Price: \$30.00

Transport Temperature: 2-8°C

**\*\*\*W\*\*\***

### **Western Blot (see HIV-1/2 Antibody)**

### **West Nile Virus IgG Serology by EIA**

Specimen Requirements: 1 mL serum. Paired acute and convalescent specimens recommended. Date of onset is required, and the city or county of patient's residence is requested.

Turn Around Time: Routinely batch tested once per week; during seasonal outbreaks, testing may be performed each working day, depending on workload. Positive results are telephoned to the submitter.

CPT Code: 86789

Price: \$19.00

Transport Temperature: Ambient

### **West Nile Virus (WNV) IgM Serology by EIA**

NOTE: Serology is the recommended method of testing for WNV in both serum and cerebral spinal fluid (CSF), because viremia (as detected by PCR) is very transient.

Specimen Requirements: 1 mL serum and/or 1 mL CSF

Date of onset is required, and the city or county of patient's residence is requested.

NOTE: Negative results on specimens drawn less than 9 days from date of onset should have a convalescent serum tested if active disease is suspected.

Turn Around Time: Routinely batch tested once per week; during seasonal outbreaks, testing may be performed each working day, depending on workload. Positive results are telephoned to the submitter. Certain specimens may be referred to the Centers for Disease Control in Fort Collins, Colorado for confirmation using more specific Plaque Reduction Neutralization tests, and equivocal (borderline) results may be reflexed to St. Louis Encephalitis IgM Serology.

CPT Code: 86788

Price: \$19.00

Transport Temperature: Ambient

\*\*\*X\*\*\*

\*\*\*Y\*\*\*

### **Yeast Culture (see Fungal Culture)**

#### ***Yersinia enterocolitica* Culture Isolation/Identification**

Specimen Requirements: Stool in Cary-Blair transport, or other commercial enteric transport media, or isolate submitted in Cary-Blair transport or on solid media. Specify agent on request form.

Turn Around Time: 2 to 4 working days. Positive results are telephoned to the submitter.

CPT Code: 87046 (Culture ID)

Price: \$13.75

87077 (Each add'l ID)

Price: \$18.25

Transport Temperature: 2-8°C for stool, ambient for isolates

#### ***Yersinia pestis* Culture Isolation/ Identification/ Rapid Test Methods**

Specimen Requirements: Isolate submitted on solid medium or tissue transported cold in sterile saline. Call the laboratory for special instructions regarding environmental samples and rapid test methods.

A suspect *Y. pestis* culture requires Infectious Disease packaging (Class 6.2) and trackable shipping. Please notify the laboratory by telephone at time of shipment.

Turn Around Time: Cultures will be held for 7 to 10 days before reporting as negative. Results are telephoned as soon as possible to the submitter. Rapid test methods are performed in Molecular Diagnostics and are available within 6 - 8 hours of specimen receipt.

CPT Code: 87081 (Culture screen)

Price: \$32.75

87798 (PCR)

Price: Fee Waived

Transport Temperature: 2-8°C for tissue, ambient for isolates

***Yersinia pestis* Rapid Test Methods** ([see \*Yersinia pestis\* Culture Isolation](#))

***Yersinia pestis* Serology by Passive Hemagglutination**

Specimen Requirements: 2 mL serum

Referred to the Centers for Disease Control, Fort Collins, Colorado

Turn Around Time: 4 to 6 weeks

CPT Code: 86793

Price: \$25.00

Transport Temperature: Ambient

**\*\*\*Z\*\*\***

# Collection and Transport of Specimens

## Chlamydia/Gonorrhea Amplified Testing Collection and Transport

The Unisex Swab Specimen Collection Kit, Vaginal Swab Specimen Collection Kit, and Urine Specimen Collection Kit are stored at room temperature.

### Endocervical Swab Collection

1. Use the Unisex Swab Specimen Collection Kit (white label).
2. Remove excess mucus from the cervical os and surrounding mucosa using the white shafted cleansing swab. Discard the white shafted swab.
3. Insert the blue shafted specimen collection swab into the endocervical canal.
4. Gently rotate the swab clockwise for 10 to 30 seconds in the endocervical canal to ensure adequate sampling.
5. Withdraw the swab carefully; avoid any contact with the vaginal mucosa.
6. Remove the cap from the swab specimen transport tube and immediately place the specimen collection swab into the transport tube.
7. Carefully break the blue swab shaft at the score line; use care to avoid splashing of contents.
8. Re-cap the swab specimen transport tube tightly. Make certain the transport tube is labeled with a minimum of patient name; collection date is also helpful.

### Vaginal Swab Collection

1. Use the Vaginal Swab Specimen Collection Kit (orange label).
2. Patient can collect own specimen in a health care facility. Vaginal swab collection is preferred over urine collection in women when a pelvic examination is not performed.
3. Insert the specimen collection swab into the vagina about two inches inside the opening of the vagina.
4. Gently rotate the swab clockwise for 10 to 30 seconds touching the walls of the vaginal to ensure adequate sampling.
5. Withdraw the swab carefully; avoid any contact with skin.
6. Remove the cap from the swab specimen transport tube and immediately place the specimen collection swab into the transport tube.
7. Carefully break the swab shaft at the score line; use care to avoid splashing of contents.
8. Re-cap the swab specimen transport tube tightly. Make certain the transport tube is labeled with a minimum of patient name; collection date is also helpful.

### Male Urethral Swab Collection

1. Use the Unisex Swab Specimen Collection Kit (white label).
2. The patient should not have urinated for at least one hour prior to sample collection.
3. Insert the blue shafted specimen collection swab 2 – 4 cm into the urethra.
4. Gently rotate the swab clockwise for 2 to 3 seconds in the urethra to ensure adequate sampling.
5. Withdraw the swab carefully.
6. Remove the cap from the swab specimen transport tube and immediately place the specimen collection swab into the transport tube.
7. Carefully break the blue swab shaft at the score line; use care to avoid splashing of contents.
8. Re-cap the swab specimen transport tube tightly. Make certain the transport tube is labeled with a minimum of patient name; collection date is also helpful.

### Rectal Swab Collection

1. Use the Unisex Swab Specimen Collection Kit (white label).
2. Use the small blue shafted collection swab, not the larger white shafted cleansing swab.
3. Insert the small blue shafted collection swab approximately 3 – 5 cm into the rectum and rotate against the rectal wall several times (at least 3 times).
4. Swabs that are grossly contaminated with feces should be discarded and the collection repeated.
5. Withdraw the swab carefully.
6. Remove the cap from the swab specimen transport tube and immediately place the specimen collection swab into the transport tube.
7. Carefully break the blue swab shaft at the score line; use care to avoid splashing of contents.
8. Re-cap the swab specimen transport tube tightly. Make certain the transport tube is labeled with a minimum of patient name; collection date is also helpful.

### Throat Swab Collection

1. Use the Unisex Swab Specimen Collection Kit (white label).
2. Use the small blue shafted collection swab, not the larger white shafted cleansing swab.
3. Using a tongue depressor, insert the small blue shafted collection swab and vigorously rub the tonsils and the posterior pharynx.
4. Carefully remove the swab, not touching any area of the mouth.
5. Remove the cap from the swab specimen transport tube and immediately place the specimen collection swab into the transport tube.
6. Carefully break the blue swab shaft at the score line; use care to avoid splashing of contents.
7. Re-cap the swab specimen transport tube tightly. Make certain the transport tube is labeled with a minimum of patient name; collection date is also helpful.
8. Complete the requisition form; be sure to record the specimen source.

### Urine Collection

1. Use the Urine Specimen Collection Kit (yellow label).
2. The patient should not have urinated for at least one hour prior to sampling.
3. Direct patient to provide a first-catch urine (approximately 20 to 30 mL of the initial urine stream) into a urine collection cup. Collection of larger volumes of urine may reduce test sensitivity. Female patients should not cleanse the labial area prior to providing the specimen. This is NOT a clean-catch urine – we want the initial urine stream which contains sloughed cells.
4. Remove the cap and transfer 2 mL of urine into the urine specimen transport tube using the disposable pipette provided. The correct volume of urine has been added when the fluid level is between the black lines on the urine specimen transport tube label.
5. Re-cap the urine specimen transport tube tightly. This is now known as the processed urine specimen. Make certain the transport tube is labeled with a minimum of patient name; collection date is also helpful.

### Swab and Urine Specimen Transport

After collection, ensure that specimens are properly labeled.

Fill out the [standard laboratory request form](#) or the [form for Chlamydia/gonorrhea screening](#).

Place the corresponding transport tube in an individual zip lock bag containing absorbent material and seal bag tightly.

Place the form in the sleeve of the zip lock bag; DO NOT put the request form inside the zip lock bag.

Store swab specimen transport tubes and processed urine specimens (those in urine specimen transport tubes) at 2°C to 30°C. Place transport tubes in white mailing canisters and send to the laboratory by mail or courier.

NOTE: Although swab specimens in the specimen transport tube must be tested within 60 days of collection and urine specimens in the specimen transport tube must be tested within 30 days of collection, we advise you to submit specimens in a timely manner so that test results can be obtained as soon as possible.

Utilize the MTPHL courier service if available, or ship specimens to the following address:

Montana Public Health Laboratory  
(Street Address)  
1400 Broadway  
Helena, MT 59601

Or  
PO Box 4369  
Helena, MT 59604-4369

### Result Reporting

Positive results are telephoned to the provider; additionally, positive GC results are telephoned to the DPHHS STD Program.

### Specimen Rejection

Specimens with unresolved labeling issues, leaking containers, expired containers, or with insufficient volume may be rejected. The provider will be notified and asked to resubmit.

### Requests for Additional Information or Specimen Collection Questions:

For additional information or questions, or to order collection kits, contact the laboratory at 800-821-7284 or 406-444-3444.

## Molecular (Nucleic Acid Amplification) Testing Collection and Transport

For technical assistance in determining proper specimen selection for specific agents, call the laboratory at 800-821-7284.

Microtest Transport Media for Viral Agents is supplied by the laboratory. Store the kits at room temperature.

Bronchial Alveolar Lavage (BAL) /Bronchial Washings	<p>For Viral Agents, mix an equal portion of the BAL with Microtest Transport Media. Store in cold conditions and ship on cold packs.</p> <p>For Bacterial Agents, collect in sterile container. Store in cold conditions and ship on cold packs.</p>
Cerebral Spinal Fluid	Place 1 – 2 mL in sterile container without transport. Store in cold conditions and ship on cold packs.
Cervical Swab	Place swab into Microtest Transport Media, break off at the score line, and tightly cap. Store in cold conditions and ship on cold packs.
Nasopharyngeal Aspirate	Introduce 1-2 mL of sterile saline into the nasopharyngeal cavity, aspirate into sterile vial. Store in cold conditions and ship on cold packs. <i>*Note: If the specimen is also being submitted for viral agents, please submit in Microtest Transport Media. Store in cold conditions and ship on cold packs.</i>
Nasopharyngeal Wash	Use only sterile saline to collect the NP wash. Instruct the patient to sit with head slightly tilted backwards, and to hold the sterile collection cup. Instruct the patient on how to constrict the muscles at the back of the throat by saying the “K” sound rapidly and repetitively. Inform the patient that this process may prevent the saline from draining down the throat. Fill a 5 cc syringe with warm sterile saline. Gently push the tip of the patient’s nose back with your thumb, and quickly inject 1 – 2 mL of sterile saline into each nostril. Instruct the patient to contain the saline in the nostrils for approximately 10 seconds while repetitively saying the “K” sound. After 10 seconds, ask the patient to tilt their head forward and collect the saline in the sterile cup. Cap the washings tightly. Refrigerate the nasopharyngeal washings until transport and ship on cold packs. <i>*Note: If the specimen is also being submitted for viral agents, please submit in Microtest Transport Media. Store in cold conditions and ship on cold packs.</i>
Nasopharyngeal Swab	<p>Use a flexible wire dacron or polyester swab. Do not use Calcium Alginate swabs. Instruct the patient to sit with head slightly tilted backwards. Bend the flexible wire in a small arc, and insert the swab into the nostril back to the nasopharyngeal cavity. The patient’s eyes will momentarily tear. Slowly rotate the swab as it is being withdrawn.</p> <p>For Viral Agents, place swab into Microtest Transport Media, trim swab shaft, and tightly cap. Store in cold conditions and ship on cold packs.</p> <p>For Bacterial Agents, place swab in sterile tube without transport.</p>
Serum	Collect 5-10 mL of whole blood in serum separator tube. Allow blood to clot, centrifuge and aliquot resulting sera. Store in cold conditions and ship on cold packs. If serum has already been frozen, ship on dry ice.
Stool	Collect at least 2 mL of stool in a leak-proof, clean, dry container. Do not add transport media. Store in cold conditions and ship on cold packs.
Throat Swab	<p>Use a plastic shafted Dacron swab. Do not use Calcium Alginate swabs. Using a tongue depressor, insert the swab and vigorously rub the tonsils and the posterior pharynx. Carefully remove the swab, not touching any area of the mouth.</p> <p>For Viral Agents, place swab into Microtest Transport Media, trim</p>

	<p>swab shaft, and tightly cap. Store in cold conditions and ship on cold packs.</p> <p>For Bacterial Agents, place swab in sterile tube without transport.</p>
Tissue Specimens Autopsy or Biopsy	<p>For Viral Agents, place each specimen in separate sterile containers containing small amounts of Microtest Transport Media. Store and ship on cold packs or dry ice. <i>Do Not submit formalized tissue.</i></p> <p>For Bacterial Agents, place each specimen in separate sterile containers containing small amounts of sterile saline or PBS. Store and ship on cold packs. <i>Do Not submit formalized tissue.</i></p>
Vesicles/Vesicular Fluid/ Scrapings	Aspirate fluid from multiple fresh unbroken vesicles and place into 1-2 mL of Microtest Transport Media. Remove the top of the vesicle and place the skin of the vesicle top into a sterile tube without transport. Store both samples in cold conditions and ship on cold packs.
Whole Blood	Collect 5 -10 mL whole blood in EDTA anticoagulant. Store in cold conditions and ship on cold packs.

Make certain tube is labeled with patient identifier, collection date and specimen source. Place each specimen container in an individual biohazard zip lock bag containing absorbent material and seal bag tightly.

Fill out the [standard laboratory request form](#) completely and place in the outer sleeve of the biohazard zip lock bag. Do not place the request form inside the biohazard zip lock bag.

Ship specimens promptly, maintaining cold temperature from collection until receipt at the laboratory. For those specimens that must be shipped in a cold condition, use cold packs and Styrofoam containers. Mailers will be returned for reuse. Transport by mail or courier.

## ***Mycobacterium* spp. (AFB or TB) Testing Collection and Transport**

All specimens are potentially infectious; handle carefully.

Sputum or Nebulized Sputum	Collect three early morning specimens on successive days (within 48 hours) and submit daily in separate containers. Good specimens are material brought up by the lungs after a productive cough or nebulization. Send a minimum of 5 mL in a sterile container.
Urine	Collect multiple first morning "clean catch" specimens on three successive days. Send a minimum of 40 mL in a sterile container.
Gastric	Collect three early morning fasting specimens on successive days. Send a minimum of 10 mL in a sterile container. Add 10 mg of sodium bicarbonate to neutralize the acidity. Send promptly after collection; these specimens should be processed as soon as possible.
Bronchial Washings	Submit first sputum specimen following bronchoscopy as well as the bronchial washings. Send a minimum of 5 mL in a sterile container.
Tissues	Collect aseptically and place in sterile container. Add about 1 mL sterile broth or sterile saline to tissues and swabs to prevent dehydration.
CSF or Other Sterile Body Fluids	Submit in sterile collection tube; at least 2 mL is needed for an adequate test.
Blood or Bone Marrow	Collect in heparinized tube or add sterile heparin (0.2 mg/mL) to prevent clotting. Send a minimum of 1 mL in a sterile container.
Stool	Submit 1 gram of raw stool in a sterile container. Send on ice.
Swab (Not Optimal)	Specimens submitted on swabs are discouraged. Please make every effort to submit tissue or aspirated fluid, as these are preferred sources.

Use only sterile materials in the collection of the specimen. Collect specimen directly into the sterile bottle provided or into a sterile container, refrigerate specimen until transported, and send as soon as possible. Make certain that the container is labeled with patient identifier and collection date.

Screw lid onto specimen container tightly so specimen does not leak; place each specimen container in an individual biohazard zip lock bag containing absorbent material and seal bag tightly.

Fill out the [standard laboratory request form](#). Place form in outside sleeve of biohazard zip lock bag and put into TB mailing container. Respiratory specimens should be packaged and transported cold by mail or courier. All other specimens may be transported at ambient temperature.

## Myiology (Fungal) Culture Collection and Transport

Tissue	Place tissue in sterile screw cap container and cover with 1 mL of sterile saline or broth. Refrigerate until time of mailing.
Blood	Collect 8 mL blood aseptically in a yellow Vacutainer tube (contains 0.05% SPS). This specimen can be used to inoculate a vented biphasic blood culture bottle containing TSB, TSA, or BHI agar and broth in a ratio of 1 part blood to 10 parts broth. Incubate at room temperature. Subculture onto Sabouraud's agar slants according to established procedures. Submit either slants or blood culture bottles for culture identification.
Bone marrow	Collect approximately 0.3 mL of bone marrow in a heparinized tube. Store specimen at room temperature or incubate until mailing. Ship in sterile screw cap container.
Bronchial wash, Pleural fluid, Joint fluid, Sputum	Send in sterile screw cap container. May be sent in TB transport container. Refrigerate specimen until mailing.
CSF	Send a minimum of 1.0 mL in sterile screw cap container. Store specimen at room temperature or incubate until mailing.
Hair	Remove about 10 hairs with roots using forceps; place hairs between clean glass slides or in clean envelope. Wrap slides in paper and tape closed. Send in mailer. NOTE: Hairs that break off at scalp level when using forceps must be removed with a knife. Scraping the scalp rarely yields infected hairs. Store and transport at room temperature.
Skin	Wipe lesions well with alcohol sponge (cotton will leave too many fibers on skin). Scrape the entire periphery of the lesion(s) with a sterile scalpel. Place scrapings between two clean glass slides as discussed under hair, or in an envelope. Send in mailer. Store and transport at room temperature.
Nails	Clean nail with alcohol sponge. Scrape and discard outer portion of nail. Collect scrapings from inner nail and send in envelope or between glass slides. Send an entire nail, if it has been removed, in a sterile screw cap container. Store and transport at room temperature.

Please Note: Both a TB culture and a fungal culture can be processed from a single specimen by request. Make certain that test request form is clearly marked.

Place each specimen container in an individual biohazard zip lock bag containing absorbent material and seal bag tightly. Make certain that container is labeled with patient identifier and collection date.

Fill out the [standard laboratory request form](#). Place form in outside sleeve of biohazard zip lock bag and put into mailing container. Transport at ambient temperature by mail or courier.

## Newborn Screening Collection and Transport

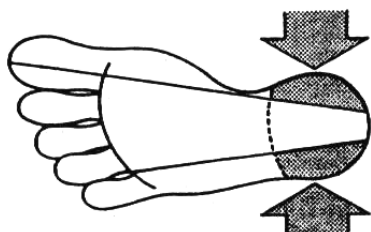
Newborn screening [specimen cards for collection of dried blood spot samples](#) are available from the laboratory. See [Supply Request Form](#). These forms contain the requisition form along with the attached filter paper collection device.

Store specimen cards in a cool dry place on edge; flat stacking compresses the filter paper fibers. Do not handle the filter paper portion, as skin oils will prevent saturation.

Complete all the information on the requisition form legibly in block capital letters.

### Sample Collection

The usual puncture site is illustrated below (shaded areas).



1. Sterilize and dry skin. Puncture heel with sterile lancet.
2. Allow large blood droplet to form.
3. Touch filter paper to blood and allow to soak through completely in each circle. Total saturation of the circles must be evident when the paper is viewed on both sides. Do not apply blood to both sides.
4. Use of capillary tubes is not recommended because they tend to roughen the filter paper and cause over absorption.
5. Allow blood spots to air dry thoroughly for 2-3 hours at room temperature. Keep away from direct sunlight and heat. Do not stack filter papers before thorough drying. Protective cover can be used to hold specimen while drying.
6. Cover with end flap only after specimen is completely dry.
7. Transport specimen by mail or courier at ambient temperature within 24 hours of collection.

Note: Specimens may be UNSATISFACTORY if:

- All circles not completely filled (QNS)
- Blood is layered by application on both sides or by multiple spotting
- Filter paper is scuffed or torn
- Specimen is contaminated or improperly dried
- Information is incomplete

## Capillary (Fingerstick Specimens) for Blood Lead Collection and Transport

Collection supplies are available free of charge by contacting the laboratory. Kits include:

2 Sterile Alcohol Preps	1 Capillary collection device	1 Transport zip lock bag
1 Lancet	1 Dry Sterile Gauze Pad	1 Instruction sheet

### Performing the Skin Puncture:

1. Thoroughly wash hands and don powder free gloves.
2. Select the puncture site. Blood can be obtained from:
  - fingertip (for adults and children older than 1 year)
  - the bottom of the big toe (infants only)
  - the heel (infants only)
3. Clean the puncture site with alcohol pad. If the site is extremely soiled or very cold, wash with warm soapy water and towel dry. Use the alcohol swab to briskly scrub the puncture site to remove any environmental contamination and to increase blood flow.
4. Allow the site to air dry or use the sterile gauze to dry the area.
5. Puncture the skin with the lancet.

### Collection of the Sample:

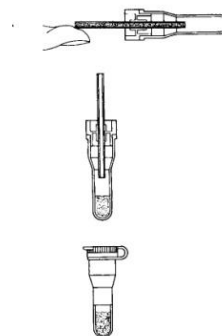
1. Use the gauze to wipe off the first drop of blood, which contains excess tissue fluid. A rounded drop of blood will form over the puncture site. When the tip of the collection device touches this drop, blood will flow by capillary action into the tube. Care should be taken that the tip of the collection device is in contact with the blood only, not skin. Gently apply continuous pressure to the surrounding tissue; avoid milking the site.

**Important:** The flow of blood must be adequate enough to fill the capillary rapidly. Do not stop to shake or tap the tube until the capillary is filled.

**Important:** Capillary must be held continuously in a horizontal position during the drawing of the blood

After filling, turn the capillary device immediately to a vertical position to allow the blood to flow into the tube

Remove capillary with holder at the same time. Close tube with attached cap.



2. Apply pressure to the puncture site with a gauze pad to stop bleeding, while mixing the specimen by inverting a minimum of five times.
3. Identify each skin puncture specimen with the patient's name and collection date.

### Submitting Specimens to the Laboratory for Testing:

1. Complete a [standard laboratory request form](#) to include the patient's name, date of birth, gender, collection date, submitter information, and, if applicable, Medicaid billing information.
2. Place the well mixed blood specimen container into the individual biohazard zip lock transport bag and seal bag tightly. Fold the requisition form and place in sleeve of the bag. Place the zip lock bag(s) into a preaddressed white mailing canister. Store the specimen(s) in the refrigerator until shipped. Specimens are stable for 7 days at refrigeration temperatures.
3. Specimens are transported at ambient temperature by mail or courier.

### Results:

1. Laboratory test results will be mailed to the submitter upon completion of testing.
2. Should the initial test be elevated, a venous specimen will be requested for verification.

## Venipuncture Specimens for Blood Lead Collection and Transport

Collection supplies are available free of charge by contacting the laboratory.

### The Venipuncture Collection Kit includes:

1 Sterile Alcohol Preps	1 Needle and Holder or 1 Needle and syringe	1 Transport zip lock bag
1 Dry Sterile Gauze Pad	1 Vacutainer EDTA tube	1 Instruction sheet

### Preparation of the Puncture Site:

1. Thoroughly wash hands and don powder free gloves.
2. Expose the selected antecubital fossa and apply tourniquet to mid-biceps. Scrub the puncture site briskly with the alcohol pad to remove any environmental contamination and to increase blood flow.
3. Allow the site to air dry or use the sterile gauze to dry the area.

### Collection of the Sample:

1. Prepare needle assembly, either needle and vacutainer holder, or needle and syringe.
2. Perform venipuncture per standard operating procedures. Make sure the vacutainer tube is completely filled before stopping collection. If using a needle and syringe, obtain a minimum of 2 mL of whole blood.
3. Remove tourniquet first, then needle from arm.
4. Apply pressure to the puncture site with a gauze pad to stop the patient's bleeding. Parent/guardian or child may continue holding direct pressure on the puncture site.
5. If drawn directly into vacutainer tube, immediately mix the specimen manually by inverting a minimum of 10 times.
6. If drawn with a needle into the syringe, immediately inject the blood from the syringe into the vacutainer tube, gently mixing while filling. Continue to mix the specimen by inverting 10 times.
7. Dispose of used needle and syringe equipment into puncture proof Sharps container.
8. Identify each skin puncture specimen with the patient's name, at a minimum, and collection date.

### Submitting Specimens to the Laboratory for Testing:

1. Complete a [standard laboratory request form](#) to include the patient's name, date of birth, gender, collection date, submitter information, and, if applicable, Medicaid billing information.
2. Place the well mixed, unclotted blood specimen in an individual biohazard zip lock bag containing absorbent material and seal bag tightly. Fold the requisition form and place in sleeve of the bag. Place the zip lock bag(s) into a preaddressed white mailing canister. Store the specimen(s) in the refrigerator until shipped. Specimens are transported at ambient temperature by mail or courier.
3. Specimens are stable for 7 days at refrigeration temperatures.

### Results:

Laboratory test results will be mailed to the submitter upon completion of testing.

## QuantiFERON®-TB Gold In-Tube Testing Collection and Transport

QuantiFERON®-TB Gold In-Tube (IT) is an *in vitro* diagnostic test using a peptide cocktail containing three different proteins to stimulate cells in heparinized whole blood. Detection of interferon- $\gamma$  (IFN- $\gamma$ ) by Enzyme-Linked Immunosorbent Assay (ELISA) is used to identify *in vitro* responses to these peptide antigens that are associated with *Mycobacterium tuberculosis* infection. QuantiFERON®-TB Gold IT is an indirect test for *M. tuberculosis* infection (including disease) and is intended for use in conjunction with risk assessment, radiography and other medical and diagnostic evaluations.

### Please read and follow the complete directions carefully!

#### Collection and Transport of Whole Blood Specimens

QuantiFERON®-TB Gold IT uses the following collection tubes; the set will be provided for you free of charge by calling 800-821-7284, or e-mailing to [mtphl@mt.gov](mailto:mtphl@mt.gov).

1. Nil Control (Grey cap with white ring).
2. TB Antigen (Red cap with white ring).
3. Mitogen Control (Purple cap with white ring).

Antigens have been dried onto the inner wall of the blood collection tubes so it is essential that the contents of the tubes be thoroughly mixed with the blood. The tubes must be transferred to a 37°C  $\pm$  1°C incubator as soon as possible and within 16 hours of collection.

#### The following procedures should be followed for optimal results:

1. For each subject collect 1 mL of blood by venipuncture directly into each of the QuantiFERON®-TB Gold IT blood collection tubes. **\*\*Note: The 1 mL volume is very important in ensuring accurate results. The use of a syringe is a good way to ensure the volume requirement is met.**
  - As 1 mL tubes draw blood relatively slowly, keep the tube on the needle for 2-3 seconds once the tube appears to have completed filling, to ensure that the correct volume is drawn.  
*The black mark on the side of the tubes indicates the 1mL fill volume. If the level of blood in any tube is not close to the indicator line, it is recommended to obtain another blood sample. Under or over-filling of the tubes may lead to erroneous results.*
  - If a “butterfly needle” is being used to collect blood, a “purge” tube should be used to ensure that the tubing is filled with blood prior to the QuantiFERON®-TB Gold IT tubes being used.
2. Mix the tubes by **SHAKING VIGOROUSLY** for 5 seconds to ensure that **the entire inner surface of the tube** has been coated with the blood.
  - Thorough mixing is required to ensure complete integration of the tube’s contents into the blood.
3. Label tubes appropriately.
  - Ensure each tube (Nil, TB Antigen, Mitogen) is identifiable by its label or other means once the cap is removed.
4. The tubes must be **transferred to a 37°C  $\pm$  1°C incubator** as soon as possible, and **within 16 hours of collection**. Prior to incubation, maintain tubes at room temperature (22°C  $\pm$  5°C). Do not refrigerate or freeze the blood specimens.
5. If the blood is not incubated immediately after collection, **re-mixing** of the tubes by vigorous shaking **for 5 seconds** must be repeated **immediately prior to incubation**.
6. Incubate the tubes **UPRIGHT** at 37°C  $\pm$  1°C for 16 to 24 hours. The incubator does not require CO<sub>2</sub> or humidification.
7. Following 37°C  $\pm$  1°C incubation, blood collection tubes may be transported between 2°C and 27°C. **Specimens must be received in the laboratory within 3 days of incubation.**
8. Complete a [standard laboratory request form](#); include date and **TIME** of draw, and **whether** or not the specimen(s) **have been incubated** prior to shipment. Please note this information in the Comments/Pertinent Information section of the blue form.

An instructional video on the mixing and storage of blood collection tubes is available at <http://www.cellestis.com/>. Click on the link on the left side of the page: QuantiFERON®-TB Gold In-Tube, Technical Information, Technical Resources, Instructional Video.

QUESTIONS? Contact the laboratory at 800-821-7284 or [mtphl@mt.gov](mailto:mtphl@mt.gov)

## Serology Specimens Collection and Transport

**TESTING POLICY:** If DATE OF ONSET is not present on laboratory request form, a convalescent specimen will be requested. True "ACUTE Phase" specimens will not be tested until the convalescent specimen is received. If more than four weeks pass without receipt of a convalescent specimen, the acute only specimen will be run and reported with a disclaimer that based on date of onset, specimen may have been collected prior to the production of significant antibodies. When acute and convalescent specimens are tested at the same time, only the convalescent specimen will be billed.

Acute Specimen	The DATE OF ONSET of symptoms or disease is less than 7 days from the date serum is obtained, usually the first few days of the illness. IgG antibody titers are not elevated. Exceptions: Rubeola, Rubella, and Colorado Tick Fever and Rocky Mountain Spotted Fever may have a significant IgG titer in 7-10 days.
Convalescent Specimen	The DATE OF ONSET of symptoms or disease is 2 weeks or greater from the date serum is obtained. IgG antibody levels should be at a significant level. Exception: Legionella sp. antibody levels may not be significant for 4-6 weeks.
Screen Only Single Specimen Only	<p>The patient has a chronic condition, with the DATE OF ONSET of symptoms or disease being a very long period of time (months to years, OR patient is being screened for antibodies to a certain infectious agent (HIV, Hepatitis B, Rubella, VZV, Toxoplasma, etc.) OR IgM testing is available.</p> <p>Single specimen test results may be difficult to interpret and an additional specimen may be requested if results warrant.</p>

Submit approximately 2 - 4 mL of clear non-hemolyzed serum for testing. Contact the laboratory for exact volumes needed if serum is difficult to obtain. Serum separator tubes can be used. Spin the SST tubes well to completely separate the serum and cells and submit the whole tube. Serum does not have to be poured off. DO NOT submit unspun SST tubes. If serum is not submitted in the original SST tube, place in a leakproof container.

Cerebral Spinal Fluid (CSF) may also be submitted for serological testing in certain instances. A serum sample should also be submitted with the CSF for comparison testing.

Specimens should be clearly labeled with patient name or other identifier, and the collection date. Completely fill out the [standard laboratory request form](#).

Place each specimen container in an individual biohazard zip lock bag containing absorbent material and seal bag tightly. Place the completed laboratory request form in the outer sleeve of the biohazard zip lock bag. Do not place the completed laboratory request form inside the zip lock bag.

If specimen is stored prior to shipment, store at 4°C. If storage is longer than 1 week, freeze the specimen. Specimens may be shipped at room temperature. Labeled pre-addressed mailing canisters are available from the laboratory. Transport by mail or courier.

## Viral Isolation/Culture Collection and Transport

Microtest Collection Kits, containing swabs and transport media, are supplied by the laboratory. Store the kits at room temperature. The expiration date is printed on the collection kits. This same media is used for Chlamydia isolation.

Autopsy/Biopsy Specimens	Place a small piece of the fresh or frozen tissue into Microtest Transport Media. Specimens in formalin are not acceptable.
Bronchial Alveolar Lavage (BAL) /Bronchial Washings	Mix an equal portion of the BAL or bronchial washing with Microtest Transport Media.
Buffy Coat	Collect 2 tubes (7 - 10 mL each) of heparinized blood.
Cerebral Spinal Fluid	Mix an equal portion of the CSF with Microtest Transport Media.
Endocervical Specimens	Place swab from cervix in Microtest Transport Media, break off at the score line, and tightly cap.
Eye (Conjunctival) Specimens	Place swab from conjunctiva in Microtest Transport Media, break off at the score line, and tightly cap.
Lesion Swabs/Scrapings	Place swab from fresh lesion into Microtest Transport Media, break off at the score line, and tightly cap.
Nasal Washes/Aspirates	See detailed instructions under <a href="#">Amplification Test Collection</a> . Introduce 1-2 mL of sterile saline into the nasopharyngeal cavity, aspirate, and mix with an equal volume of Microtest Transport Media.
Nasopharyngeal Swab	See detailed instructions under <a href="#">Amplification Test Collection</a> . Use the flexible shaft small dacron swab to collect the specimen. Place swab into Microtest Transport Media, trim shaft below the cap line, and tightly cap.
Rectal Swab	Place swab into Microtest Transport Media, break off at the score line, and tightly cap.
Saliva	Mix an equal portion of saliva with Microtest Transport Media.
Stool	Emulsify a small portion of the stool (smaller than a pea) in Microtest Transport Media.
Throat Swab	See detailed instructions under <a href="#">Amplification Test Collection</a> . Place swab into Microtest Transport Media, break off at the score line, and tightly cap.
Urethral Swab	Place swab into Microtest Transport Media, break off at the score line, and tightly cap.
Urine	Mix an equal portion of urine with Microtest Transport Media.
Vesicular Fluid	Aspirate fluid from fresh unbroken vesicle and place into Microtest Transport Media.

Make certain tube is labeled with patient identifier and collection date. Place each specimen container in an individual biohazard zip lock bag containing absorbent material and seal bag tightly.

Fill out [standard laboratory request form](#) completely and place in the outer sleeve of the biohazard zip lock bag. Do not place the request form inside the biohazard zip lock bag.

Specimens must be kept cold from the time they are collected until the time they are processed by the laboratory. Shipment must be done promptly, so that specimens are received by the laboratory within 48 hours of collection. Specimens must be shipped in a cold condition, usually by the use of cold packs and Styrofoam containers. Mailers will be returned for reuse. Transport by mail or courier.

## ***Chlamydia* spp. Isolation/Culture Collection and Transport**

Microtest Collection kits, containing swabs and transport media, are supplied by the laboratory. Store at room temperature. Expiration date is printed on the collection kit. This same collection media can be used for viral isolation specimens.

Autopsy/Biopsy Specimens	Place a small piece of the fresh or frozen tissue into Microtest Transport Media. Specimens in formalin are not acceptable.
Endocervical Specimens	Wipe the cervix with one of the swabs in the collection kit prior to sample collection to remove mucus and WBC. Insert the second swab into the cervical os to collect cells from the transitional zone. Rotate the swab vigorously in firm contact with the endocervical surface to facilitate the collection of columnar epithelial cells. Place swab in Microtest Transport Media, break off at the score line, and tightly cap.
Eye (Conjunctival) Specimens	Place swab from conjunctiva in Microtest Transport Media, break off at the score line, and tightly cap.
Nasal Washes/Aspirates	Introduce 1-2 mL of sterile saline into the nasopharyngeal cavity, aspirate, and mix with an equal volume of Microtest Transport Media.
Nasopharyngeal Swab	Use the flexible shaft small dacron swab to collect the specimen. Place swab into Microtest Transport Media, trim swab so that the shaft is below the cap line, and tightly cap.
Rectal Mucosa	Place swab into Microtest Transport Media, break off at the score line, and tightly cap.
Throat Swab	Place swab into Microtest Transport Media, break off at the score line, and tightly cap.
Urethral Swab	Patient should not have urinated within one hour of collection. Insert a small swab into the urethra and hold to absorb body fluids. Rotate the swab several times to obtain columnar epithelial cells, then withdraw. Place swab into Microtest Transport Media, break off at the score line, and tightly cap.

Make certain tube is labeled with patient identifier and collection date. Place each specimen container in an individual biohazard zip lock bag containing absorbent material and seal bag tightly.

Fill out the [standard laboratory request form](#) completely and place in the outer sleeve of the biohazard zip lock bag. Do not place the request form inside the biohazard zip lock bag.

Specimens must be kept cold from the time they are collected until the time they are processed by the laboratory. Shipment must be done promptly, so that specimens are received by the laboratory within 48 hours of collection. Specimens must be shipped in a cold condition, usually by the use of cold packs and Styrofoam containers. The mailers will be returned for reuse. Transport by mail or courier.

# Clinical Laboratory Requisition Forms

Various requisition forms are available by calling the laboratory at 800-821-7284:

The [standard laboratory request form](#), preprinted with your account information; all clinical testing can be ordered with this form.

A specific [form for Chlamydia/gonorrhea screening only](#); this form collects additional information for public health program planning.

A [newborn screening panel form](#); this form contains the dried blood spot collection kit.  
Examples of each form are included on the following pages, as well as specific instructions on filling out the Chlamydia/GC and Newborn Screening forms.

## General Instructions:

Please fill the forms out completely to include (at a minimum):

Patient Last Name or anonymous identifier (required)

Patient First Name

Patient ID #

Date of Birth

Gender

Medicaid # (if applicable)

NPI (or UPIN) # of Physician/Clinician (preferred)

Physician/Clinician Name (if NPI is not provided)

Specimen Collection Date (required)

Date of Onset of Illness (for serology and molecular testing)

Source of Specimen (If source is serum, indicate if the serum is acute, convalescent, or a screen only)

Test(s) Ordered

NOTE: Forms are read using an optical scanning device. Please print information clearly in boxes indicated. Do not use preprinted labels or stamps.

# Standard Laboratory Testing Requisition Form

## MONTANA DEPARTMENT OF PUBLIC HEALTH & HUMAN SERVICES Public Health Laboratory

P.O. Box 4369 Helena, MT 59604-4369  
(406) 444-3444 (800) 821-7284 CLIA ID # 27D0652531

PATIENT INFORMATION		PROVIDER INFORMATION	
<b>LAST NAME</b> <div style="border: 1px solid black; height: 20px; width: 100%;"></div> <b>FIRST NAME</b> <div style="border: 1px solid black; height: 20px; width: 100%;"></div> <b>PATIENT ID #</b> <div style="border: 1px solid black; height: 20px; width: 100%;"></div> <b>DATE OF BIRTH</b> <div style="display: flex; justify-content: space-between;"> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> </div> <div style="display: flex; justify-content: space-between;"> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> </div> <b>GENDER</b> <div style="display: flex; justify-content: space-around;"> <input type="checkbox"/> Male           <input type="checkbox"/> Female         </div> <b>MEDICAID #</b> <div style="border: 1px solid black; height: 20px; width: 100%;"></div>	<b>PHYSICIAN / CLINICIAN NAME</b> <div style="border: 1px solid black; height: 20px; width: 100%;"></div> <b>UPIN #</b> <div style="border: 1px solid black; height: 20px; width: 100%;"></div>		
TEST(S) REQUESTED INFORMATION		LAB USE ONLY	
<b>Serology:</b> <input type="checkbox"/> TORCH Panel IgG <input type="checkbox"/> Tick Borne Disease Panel <input type="checkbox"/> Hepatitis Acute Panel  <input type="checkbox"/> Blood Lead <input type="checkbox"/> Brucella Antibody <input type="checkbox"/> CTFV IgG Serology <input type="checkbox"/> Cytomegalovirus IgG Antibody <input type="checkbox"/> Cytomegalovirus IgM Antibody <input type="checkbox"/> Fluorescent Treponemal Antibody (FTA-ABS) <input type="checkbox"/> Hantavirus IgG & IgM Serology <input type="checkbox"/> Herpes Simplex Virus IgG Serology <input type="checkbox"/> HIV-1 Antibody <input type="checkbox"/> Legionella IgG Serology <input type="checkbox"/> Mumps IgG Serology <input type="checkbox"/> Q Fever IgG Serology <input type="checkbox"/> RMSF IgG Serology <input type="checkbox"/> Rubella IgG Antibody <input type="checkbox"/> Rubella IgM Antibody <input type="checkbox"/> Rubeola (Measles) IgG Antibody <input type="checkbox"/> Rubeola (Measles) IgM Antibody <input type="checkbox"/> Syphilis Serology <input type="checkbox"/> Syphilis Serology, Quantitative	<input type="checkbox"/> Toxoplasma IgG Antibody <input type="checkbox"/> Toxoplasma IgM Antibody <input type="checkbox"/> Tularemia Antibody <input type="checkbox"/> Varicella Zoster Virus IgG Serology <input type="checkbox"/> West Nile Virus IgM Serology <input type="checkbox"/> West Nile Virus IgG Serology  <input type="checkbox"/> Hepatitis B Surface Antigen <input type="checkbox"/> Hepatitis B Surface Antibody <input type="checkbox"/> Hepatitis B Total Core Antibody <input type="checkbox"/> Hepatitis B Core IgM Antibody <input type="checkbox"/> Hepatitis A IgM Antibody <input type="checkbox"/> Hepatitis C Antibody <input type="checkbox"/> HCV RNA Quantitation  <b>Surveillance Cultures (no charge):</b> <input type="checkbox"/> GC Confirmation/Susceptibility <input type="checkbox"/> Salmonella/Shigella/E. coli <input type="checkbox"/> ESBL Confirmation <input type="checkbox"/> MRSA Confirmation <input type="checkbox"/> VRE Confirmation <input type="checkbox"/> Influenza Confirmation  <b>Chlamydia Culture:</b> <input type="checkbox"/> Chlamydia Culture	<b>Virus Culture:</b> <input type="checkbox"/> Respiratory Virus Isolation <input type="checkbox"/> Enteric Virus Isolation <input type="checkbox"/> CNS Virus Isolation <input type="checkbox"/> Virus Isolation <input type="checkbox"/> Cytomegalovirus Isolation <input type="checkbox"/> Herpes Simplex Virus Isolation <input type="checkbox"/> Varicella Zoster Virus Isolation <input type="checkbox"/> RSV Direct Detection  <b>Nucleic Acid Amplification:</b> <input type="checkbox"/> Chlamydia and Gonorrhea (APTIMA) <input type="checkbox"/> Chlamydia Only (APTIMA) <input type="checkbox"/> Gonorrhea Only (APTIMA) <input type="checkbox"/> Varicella Zoster PCR <input type="checkbox"/> Enterovirus NAAT <input type="checkbox"/> Influenza A PCR <input type="checkbox"/> Influenza B PCR <input type="checkbox"/> Adenovirus PCR <input type="checkbox"/> Herpes Simplex Virus PCR <input type="checkbox"/> Norovirus PCR <input type="checkbox"/> M. tuberculosis Direct Amplification <input type="checkbox"/> Bordetella pertussis/parapert PCR	<b>Microbiology:</b> <input type="checkbox"/> Autoclave Monitoring-BT Test <input type="checkbox"/> Chemclave Monitoring Test <input type="checkbox"/> Enteric Panel Culture <input type="checkbox"/> Campylobacter screen <input type="checkbox"/> Yersinia screen <input type="checkbox"/> Vibrio screen <input type="checkbox"/> EHEC (STEC) Toxin Test <input type="checkbox"/> Clostridium difficile Toxin Test <input type="checkbox"/> Bacteriology Culture/ID, Aerobic <input type="checkbox"/> Bacteriology Culture/ID, Anaerobic <input type="checkbox"/> BT Agent Rule Out (list in Comments) <input type="checkbox"/> Bordetella pertussis Culture/ID <input type="checkbox"/> Legionella Direct Detection <input type="checkbox"/> Legionella Culture/ID <input type="checkbox"/> Neisseria gonorrhoeae Culture/ID <input type="checkbox"/> Streptococcus Group A Culture Screen <input type="checkbox"/> TB Mycobacteria Culture/ID <input type="checkbox"/> Fungus Culture/ID <input type="checkbox"/> Ova and Parasite Exam <input type="checkbox"/> Cryptosporidium/Cyclospora Detection <input type="checkbox"/> Malaria Screen <input type="checkbox"/> Modified Acid Fast Stain
<b>Test(s) Requested (If Not Listed)</b> <div style="border: 1px solid black; height: 40px; width: 100%;"></div>		<b>Comments / Pertinent Information / Symptoms</b> <div style="border: 1px solid black; height: 40px; width: 100%;"></div>	
<b>SPECIMEN COLLECTION DATE</b> <div style="display: flex; justify-content: space-between;"> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> </div> <b>DATE OF ONSET</b> <div style="display: flex; justify-content: space-between;"> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> </div>		<b>SPECIMEN SOURCE</b> <div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"> <input type="checkbox"/> Throat/NP Swab  <input type="checkbox"/> Stool/Rectal Swab  <input type="checkbox"/> Lesion Swab  <input type="checkbox"/> Urine  <input type="checkbox"/> Acute Serum           </div> <div style="width: 33%;"> <input type="checkbox"/> Cervical Swab  <input type="checkbox"/> Urethral Swab  <input type="checkbox"/> Sputum  <input type="checkbox"/> EDTA Blood  <input type="checkbox"/> Convalescent Serum           </div> <div style="width: 33%;"> <input type="checkbox"/> CSF  <input type="checkbox"/> Bronchial Washings  <input type="checkbox"/> Other _____  <input type="checkbox"/> Pleural Fluid (Specify)  <input type="checkbox"/> Serum Screen Only           </div> </div>	

DPHHS PHL 0808

38558

# Chlamydia/GC Screening Requisition Form

This form collects additional demographic information for public health program planning. Please submit this completed form with requests for Chlamydia screening.

## MONTANA DEPARTMENT OF PUBLIC HEALTH & HUMAN SERVICES

### Public Health Lab CT/GC Form

P.O. Box 4369 Helena, MT 59604-4369  
(406) 444-3444 (800) 821-7284 CLIA ID # 27D0652531

3327061

PATIENT INFORMATION			PROVIDER INFORMATION	
LAST NAME			PHYSICIAN/CLINICIAN NAME	
FIRST NAME				
PATIENT ID #				
DATE OF BIRTH		RACE (Check all that apply)	UPIN #	
/ /		<input type="checkbox"/> White <input type="checkbox"/> Black <input type="checkbox"/> American Indian/Alaska Native <input type="checkbox"/> Asian <input type="checkbox"/> Native Hawaiian/Other Pacific Islander <input type="checkbox"/> Unknown / Not Reported		
ZIP CODE OF PATIENT		GENDER	MTPHL USE ONLY	
		<input type="checkbox"/> Male <input type="checkbox"/> Female		
MEDICAID #		ETHNICITY		
		<input type="checkbox"/> Hispanic <input type="checkbox"/> Non-Hispanic <input type="checkbox"/> Unknown		
CLINICAL INFORMATION			TEST(S) REQUESTED INFORMATION	
RISK HISTORY (Check all that apply)	REASON FOR VISIT (Check all that apply)	CLINICAL SIGNS (Check all that apply)	SPECIMEN COLLECTION DATE	
<input type="checkbox"/> No Risk History <input type="checkbox"/> > 1 partner in past 60 days <input type="checkbox"/> New partner in past 60 days <input type="checkbox"/> Previous Chlamydia + in last 12 mo. <input type="checkbox"/> Does not always use condoms	<input type="checkbox"/> Symptomatic <input type="checkbox"/> Exposed to STD Past 60 days <input type="checkbox"/> Chlamydia + in Past 3 Mos. <input type="checkbox"/> Client Meets Screening Criteria <input type="checkbox"/> IUD Insertion <input type="checkbox"/> Pregnancy Test Visit <input type="checkbox"/> Patient Request	<input type="checkbox"/> Cervical Friability <input type="checkbox"/> Mucopus <input type="checkbox"/> PID <input type="checkbox"/> Urethritis <input type="checkbox"/> None	/ /	
DID YOU PRESUMPTIVELY TREAT THIS PATIENT FOR CHLAMYDIA?			TEST REQUESTED	
<input type="checkbox"/> Yes <input type="checkbox"/> No			<input type="checkbox"/> Chlamydia & Gonorrhea <input type="checkbox"/> Gonorrhea Only <input type="checkbox"/> Chlamydia Only	
			SOURCE	
			<input type="checkbox"/> Cervical <input type="checkbox"/> Other (Specify) <input type="checkbox"/> Urethral <input type="checkbox"/> Urine <input type="checkbox"/> Rectal <input type="checkbox"/> Throat <input type="checkbox"/> Vaginal	

42777

## Chlamydia Lab/Data Form Instructions

**PATIENT NAME:** Please print clearly. LAST NAME first. The last name will be transformed into a numeric code and combined with date of birth to create a confidential ID code for data transmission.

**DATE OF BIRTH:** Please record in the MONTH/DAY/YEAR fashion. This field **MUST** be completed.

**PATIENT ZIP CODE:** Please print clearly and record the 5 digit zip code of the patient's residence. This will be used to determine the geographic distribution of Chlamydia.

**SPECIMEN COLLECTION DATE:** This is the date the patient was seen at the clinic and a specimen for Chlamydia testing was obtained. Please record in the MONTH/DAY/YEAR fashion. This field **MUST** be completed.

**TEST REQUESTED:** You have the option of picking the combination Ct/GC test, or each one individually

**SOURCE:** Please select only one source.

<b>RACE:</b> (check all that apply) This information is obtained from the patient.	<input type="checkbox"/> White <input type="checkbox"/> Black <input type="checkbox"/> American Indian/Alaska Native <input type="checkbox"/> Asian <input type="checkbox"/> Native Hawaiian/Other Pacific Islander <input type="checkbox"/> Unknown / Not Reported
<b>ETHNICITY:</b> (check only one box) If unsure, ask the patient if they consider themselves to be Hispanic.	<input type="checkbox"/> Hispanic <input type="checkbox"/> Non-Hispanic <input type="checkbox"/> Unknown
<b>RISK HISTORY:</b> (check all that apply) First three factors are self-explanatory. Previous Chlamydia + refers to whether the patient has had a positive Chlamydia test during the past year.	<input type="checkbox"/> No Risk History <input type="checkbox"/> >1 partner past 60 days <input type="checkbox"/> New partner past 60 days <input type="checkbox"/> Previous Chlamydia + in last 12 months <input type="checkbox"/> Does not always use condoms
<b>REASON FOR EXAM:</b> (check all that apply) This information is obtained from the patient, or is determined by the clinician seeing the patient.	<input type="checkbox"/> Symptomatic <input type="checkbox"/> Exposed to STD Past 60 days <input type="checkbox"/> Chlamydia + in Past 3 Mos. <input type="checkbox"/> Client Meets Screening Criteria <input type="checkbox"/> IUD insertion <input type="checkbox"/> Pregnancy Test Visit <input type="checkbox"/> Patient Request
<b>CLINICAL SIGNS:</b> (check all that apply) Cervical Friability refers to easily induced bleeding with the initial swab.  Mucopus refers to yellow or green mucopurulent discharge from the cervix,  PID refers to Pelvic Inflammatory Disease. Signs and symptoms suggestive of PID include: abdominal pain/tenderness on pelvic exam, vaginal discharge/bleeding, dysuria, fever and sometimes nausea or vomiting.  Urethritis refers to urethral discharge or dysuria.  None refers to absence of all of the above clinical signs on exam.	<input type="checkbox"/> Cervical Friability <input type="checkbox"/> Mucopus <input type="checkbox"/> PID <input type="checkbox"/> Urethritis <input type="checkbox"/> None
<b>TREATMENT:</b> Based on clinic/epidemiologic assessment, was the patient sent home with medication (or prescription) to treat Chlamydia without waiting for Chlamydia test results?	Did you presumptively treat this patient for Chlamydia? <input type="checkbox"/> Yes <input type="checkbox"/> No

# Newborn Screening Requisition Form

This form has attached special filter paper for collection of the blood spots.

<b>MONTANA DPHHS NEWBORN SCREENING</b> Public Health Laboratory P.O. Box 4369, Helena, MT 59604-4369 (800) 821-7284 CLIA ID # 27D0652531 REF 10535643 Rev.2 W081 6835209 LOT 2012.03		SN 208400											
Baby's Last Name _____ Baby's First Name _____ Baby's ID Number _____ Mother's Last Name _____ Mother's First Name _____ Baby's Physician _____ Medicaid ID Number _____ Physician UPIN # _____ Physician's Telephone _____ Submitter's ID Number _____ Submitter's Address _____		Do Not Write In This Space <table border="1"> <tr> <td>           RACE OF BABY  <input type="checkbox"/> White <input type="checkbox"/> Native Amer. <input type="checkbox"/> Other  <input type="checkbox"/> Black <input type="checkbox"/> Asian <input type="checkbox"/> Unk         </td> <td>           ETHNICITY OF BABY  <input type="checkbox"/> Non-Hispanic <input type="checkbox"/> Unk  <input type="checkbox"/> Hispanic         </td> <td>           SPECIMEN  <input type="checkbox"/> 1st <input type="checkbox"/> Repeat         </td> </tr> <tr> <td colspan="2">           BIRTH DATE            _____/_____/_____            DATE SPECIMEN COLLECTED            _____/_____/_____            AGE AT TIME OF COLLECTION  <input type="checkbox"/> &lt;24 Hours <input type="checkbox"/> &gt;24 Hours         </td> <td>           BIRTH WEIGHT (grams)            _____            COLLECTION WEIGHT  <input type="checkbox"/> Greater than 1500 grams  <input type="checkbox"/> If not, Enter Weight (gm)         </td> </tr> <tr> <td colspan="2">           IS THE BABY ON TPN? <input type="checkbox"/> Y <input type="checkbox"/> N            HAS THE BABY RECEIVED A TRANSFUSION? <input type="checkbox"/> Y <input type="checkbox"/> N            DATE OF TRANSFUSION _____         </td> <td colspan="2">           SCREEN FOR THE FOLLOWING CONDITIONS:  <input type="checkbox"/> Newborn Screening Panel (Required):            Includes PKU, Congenital Hypothyroidism, Galactosemia,            Hemoglobinopathies, Cystic Fibrosis (IRT), Acylcarnitine Profile            (MS/MS), Biotinidase Deficiency, Congenital Adrenal Hyperplasia,            Aminoacidopathies (MS/MS).  <input type="checkbox"/> Other (specify) _____         </td> </tr> </table>		RACE OF BABY <input type="checkbox"/> White <input type="checkbox"/> Native Amer. <input type="checkbox"/> Other <input type="checkbox"/> Black <input type="checkbox"/> Asian <input type="checkbox"/> Unk	ETHNICITY OF BABY <input type="checkbox"/> Non-Hispanic <input type="checkbox"/> Unk <input type="checkbox"/> Hispanic	SPECIMEN <input type="checkbox"/> 1st <input type="checkbox"/> Repeat	BIRTH DATE _____/_____/_____ DATE SPECIMEN COLLECTED _____/_____/_____ AGE AT TIME OF COLLECTION <input type="checkbox"/> <24 Hours <input type="checkbox"/> >24 Hours		BIRTH WEIGHT (grams) _____ COLLECTION WEIGHT <input type="checkbox"/> Greater than 1500 grams <input type="checkbox"/> If not, Enter Weight (gm)	IS THE BABY ON TPN? <input type="checkbox"/> Y <input type="checkbox"/> N HAS THE BABY RECEIVED A TRANSFUSION? <input type="checkbox"/> Y <input type="checkbox"/> N DATE OF TRANSFUSION _____		SCREEN FOR THE FOLLOWING CONDITIONS: <input type="checkbox"/> Newborn Screening Panel (Required): Includes PKU, Congenital Hypothyroidism, Galactosemia, Hemoglobinopathies, Cystic Fibrosis (IRT), Acylcarnitine Profile (MS/MS), Biotinidase Deficiency, Congenital Adrenal Hyperplasia, Aminoacidopathies (MS/MS). <input type="checkbox"/> Other (specify) _____	
RACE OF BABY <input type="checkbox"/> White <input type="checkbox"/> Native Amer. <input type="checkbox"/> Other <input type="checkbox"/> Black <input type="checkbox"/> Asian <input type="checkbox"/> Unk	ETHNICITY OF BABY <input type="checkbox"/> Non-Hispanic <input type="checkbox"/> Unk <input type="checkbox"/> Hispanic	SPECIMEN <input type="checkbox"/> 1st <input type="checkbox"/> Repeat											
BIRTH DATE _____/_____/_____ DATE SPECIMEN COLLECTED _____/_____/_____ AGE AT TIME OF COLLECTION <input type="checkbox"/> <24 Hours <input type="checkbox"/> >24 Hours		BIRTH WEIGHT (grams) _____ COLLECTION WEIGHT <input type="checkbox"/> Greater than 1500 grams <input type="checkbox"/> If not, Enter Weight (gm)											
IS THE BABY ON TPN? <input type="checkbox"/> Y <input type="checkbox"/> N HAS THE BABY RECEIVED A TRANSFUSION? <input type="checkbox"/> Y <input type="checkbox"/> N DATE OF TRANSFUSION _____		SCREEN FOR THE FOLLOWING CONDITIONS: <input type="checkbox"/> Newborn Screening Panel (Required): Includes PKU, Congenital Hypothyroidism, Galactosemia, Hemoglobinopathies, Cystic Fibrosis (IRT), Acylcarnitine Profile (MS/MS), Biotinidase Deficiency, Congenital Adrenal Hyperplasia, Aminoacidopathies (MS/MS). <input type="checkbox"/> Other (specify) _____											

Whatman 903® LOT W081 6835209  
 SN 208400  
 READ INSTRUCTIONS ON BACK OF FORM.  
 DO NOT HANDLE FILTER PAPER.  
 DO NOT APPLY BLOOD TO BOTH SIDES

All information contained on the form must be completed.

Complete the patient information (name, sex, ID#, race, and ethnicity) as well as the mother's name and baby's physician.

Mark the specimen as to whether this is the first screen performed on the baby, or repeat screen. If the baby was screened at the hospital, and then is followed up with a repeat test at the physician's office, mark the repeat box.

Accurately complete the birth date and specimen collection date. If the birth date and specimen date are only 1 day apart, and the >24 hour box is not marked, the baby will be assumed to be < 24 hours of age at the time of collection. Samples obtained from a child less than 24 hours old must be repeated.

Complete the birth weight in grams and mark if the collection weight is greater than 1500 grams. If the collection weight is not >1500 grams, enter the weight in grams in the blank provided. Samples obtained on a child < 1500 grams of weight must be repeated.

Answer the questions on transfusion history. In cases when the baby received a transfusion, please include the date of transfusion. Samples must be repeated 90-120 days post transfusion.

If the baby is on TPN (Total Parenteral Nutrition) at the time of collection, please indicate that on the form.

As of January 2008, the entire Newborn Screening panel is mandatory.

This same form can be used for monitoring Phenylalanine levels on patients with known PKU disease.

# Lyme Disease Report Form (can be downloaded from CDC website)

<http://www.cdc.gov/ncidod/dvbid/lyme/resources/LymeDiseaseCaseReportForm.pdf>

## LYME DISEASE CASE REPORT

Patient's Name: \_\_\_\_\_ First Name: \_\_\_\_\_ Phone No.: ( ) \_\_\_\_\_  
Address: \_\_\_\_\_ City: \_\_\_\_\_

Detach before sending to CDC



DEPARTMENT OF  
HEALTH & HUMAN SERVICES  
Centers for Disease Control  
and Prevention

## LYME DISEASE CASE REPORT



Approved OMB No. 0920-0004

<b>State:</b> _____	<b>County:</b> _____	<b>Zip:</b> _____
------------------------	-------------------------	----------------------

<b>Age:</b> _____	<b>Sex:</b> <input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Unspecified	<b>Patient Ethnicity: (select one)</b> <input type="checkbox"/> Hispanic/Latino <input type="checkbox"/> Unk <input type="checkbox"/> Not Hispanic/Latino	<b>Patient Race: (select all that apply)</b> <input type="checkbox"/> American Indian or Alaska Native <input type="checkbox"/> Black or African American <input type="checkbox"/> White <input type="checkbox"/> Unk <input type="checkbox"/> Asian <input type="checkbox"/> Native Hawaiian or Pacific Islander <input type="checkbox"/> Other
----------------------	--	---	--

### - SYMPTOMS AND SIGNS OF CURRENT EPISODE - (PLEASE MARK EACH QUESTION)

#### DERMATOLOGIC:

Erythema migrans (physician diagnosed EM at least 5 cm in diameter) ..... ☐ Yes ☐ No ☐ Unk

#### RHEUMATOLOGIC:

Arthritis characterized by brief attacks of joint swelling ..... ☐ Yes ☐ No ☐ Unk

#### NEUROLOGIC:

Bell's palsy or other cranial neuritis ..... ☐ Yes ☐ No ☐ Unk

Radiculoneuropathy ..... ☐ Yes ☐ No ☐ Unk

Lymphocytic meningitis ..... ☐ Yes ☐ No ☐ Unk

Encephalitis/Encephalomyelitis ..... ☐ Yes ☐ No ☐ Unk

CSF tested for antibodies to B. burgdorferi ..... ☐ Yes ☐ No ☐ Unk

Antibody to B. burgdorferi higher in CSF than serum ..... ☐ Yes ☐ No ☐ Unk

#### CARDIOLOGIC:

2nd or 3rd degree atrioventricular block ..... ☐ Yes ☐ No ☐ Unk

#### Other clinical:

<b>Date of onset of first symptoms:</b> Mo. Day Year [ ][ ] [ ][ ] [ ][ ][ ][ ]	<b>Date of diagnosis:</b> Mo. Day Year [ ][ ] [ ][ ] [ ][ ][ ][ ]	<b>Date of report to health agency:</b> Mo. Day Year [ ][ ] [ ][ ] [ ][ ][ ][ ]
---	---	---

### - OTHER HISTORY -

Was the patient hospitalized for the current episode ..... ☐ Yes ☐ No ☐ Unk

Name of antibiotic(s) used this episode \_\_\_\_\_ Use in days \_\_\_\_\_

Was the patient pregnant at the time of illness ..... ☐ Yes ☐ No ☐ Unk

Where was the patient most likely exposed: County \_\_\_\_\_ State: \_\_\_\_\_

### - LABORATORY RESULTS -

	Positive	Negative	Equivocal	Not done/Unk
Serologic test results: .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Culture results: .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (specify) _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>Physician's name:</b> _____	<b>Phone No.</b> ( ) _____	<b>Person completing form:</b> _____	<b>Phone No.</b> ( ) _____
-----------------------------------	-------------------------------	---	-------------------------------

<b>Address:</b> _____	<b>Address:</b> _____
--------------------------	--------------------------

### - FOR INTERNAL USE ONLY -

<b>State ID No.</b> [ ][ ][ ][ ][ ][ ][ ][ ]	<b>CDC ID No.</b> [ ][ ][ ][ ][ ][ ][ ][ ]	<b>Date reported to CDC</b> Mo. Day Year [ ][ ] [ ][ ] [ ][ ][ ][ ]
---	---	---

Public reporting burden of this collection of information is estimated to average 10 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. An agency may not conduct or sponsor a collection of information unless it displays a currently valid OMB control number. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to CDC, Project Clearance Officer, 1600 Clifton Road, MS E-71, Atlanta, GA 30333, ATTN: PRA (0920-0004). Do not send the completed form to this address.

## **LYME DISEASE NATIONAL SURVEILLANCE CASE DEFINITION**

Lyme disease is a systemic, tick-borne disease with protean manifestations, including dermatologic, rheumatologic, neurologic, and cardiac abnormalities. The best clinical marker for the disease is the initial skin lesion, erythema migrans (EM), that occurs in 60% to 80% of patients.

**A case of Lyme disease is defined as follows:**

1. A person with erythema migrans; or
2. A person with at least one late manifestation and laboratory confirmation of infection.

NOTE: *It should be emphasized that is an epidemiologic case definition intended for surveillance purposes only.*

### **General clinical epidemiologic definitions:**

**1. Erythema migrans (EM):**

For purposes of surveillance, EM is a skin lesion that typically begins as a red macule or papule and expands over a period of days or weeks to form a large round lesion, often with partial central clearing. A solitary lesion must reach at least 5 cm in size. Secondary lesions may also occur. Annular erythematous lesions occurring within several hours of a tick bite represent hypersensitivity reactions and do not qualify as EM. In most patients, the expanding EM lesion is accompanied by other acute symptoms, particularly fatigue, fever, headache, mild stiff neck, arthralgias, or myalgias. These symptoms are typically intermittent. The diagnosis of EM must be made by a physician. Laboratory confirmation is recommended for persons with no known exposure.

**2. Late manifestations:**

These include any of the following when an alternate explanation is not found.

**a. Musculoskeletal system:**

Recurrent, brief attacks (weeks or months) of objective joint swelling in one or a few joints sometimes followed by chronic arthritis in one or a few joints. Manifestations not considered as criteria for diagnosis include chronic progressive arthritis not preceded by brief attacks and chronic symmetrical polyarthritis. Additionally, arthralgias, myalgias, or fibromyalgia syndromes alone are not accepted as criteria for musculoskeletal involvement.

**b. Nervous system:**

Lymphocytic meningitis, cranial neuritis, particularly facial palsy (may be bilateral), radiculoneuropathy or rarely, encephalomyelitis alone or combination. Encephalomyelitis must be confirmed by showing antibody production against *B. burgdorferi* in the cerebrospinal fluid (CSF), demonstrated by a higher titer of antibody in CSF than in serum. Headache, fatigue, paresthesias, or mild stiff neck alone are not accepted as criteria for neurologic involvement.

**c. Cardiovascular system:**

Acute onset, high grade (2nd or 3rd degree) atrioventricular conduction defects that resolve in days to weeks and are sometimes associated with myocarditis. Palpitations, bradycardia, bundle branch block, or myocarditis alone are not accepted as criteria for cardiovascular involvement.

**3. Exposure:**

Exposure is defined as having been in wooded, brushy, or grassy areas (potential tick habitats) in an endemic county no more than 30 days prior to the onset of EM. A history of tick bite is not required.

**4. Endemic county:**

An endemic county is one in which at least 2 definite cases have been previously acquired or a county in which a tick vector has been shown to be infected with *B. burgdorferi*.

**5. Laboratory confirmation:**

Laboratory confirmation of infection with *B. burgdorferi* is established when a laboratory isolates the spirochete from tissue or body fluid, detects diagnostic levels of IgM or IgG antibodies to the spirochete in serum or CSF, or detects a significant change in antibody levels in paired acute and convalescent serum samples. States may determine the criteria for laboratory confirmation and diagnostic levels of antibody. Syphilis and other known causes of biologic false positive serologic test results should be excluded, as appropriate, when laboratory confirmation has been based on serologic testing alone.

## Supply Order Form

**Montana Public Health Laboratory**  
**Supply Order Form**  
**Toll Free 800-821-7284 or FAX 406-444-1802**

Facility / ATTN: \_\_\_\_\_  
Street Address \_\_\_\_\_  
City/State/Zip \_\_\_\_\_  
Account Number: \_\_\_\_\_ Order Date: \_\_\_\_\_  
Phone No: \_\_\_\_\_ Order Taken By: \_\_\_\_\_

### Quantity

### Supplies

Revised 03/2010

	<u>Kits</u>	<u>Boxes</u>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	Chlamydia/GC Aptima <b>SWAB</b> Collection Kits (50/box) (for Cervical, Urethral, Rectal or Throat Specimens)
_____	<input type="checkbox"/>	<input type="checkbox"/>	Chlamydia/GC Aptima <b>URINE</b> Collection Kits (50/box)
_____	<input type="checkbox"/>	<input type="checkbox"/>	Chlamydia/GC Aptima <b>VAGINAL</b> Collection Kits (50/box)
_____			Tuberculosis Transports
_____			Ova & Parasite Transports
_____			QuantiFERON Gold In Tube Collection Tubes (3 tubes/set)
_____			Streptococcus Screening Kits
_____			Capillary Blood Lead Collection Kits
_____			Venous Blood Lead Collection Kits
	<input type="checkbox"/>	<input type="checkbox"/>	Vacutainer      Syringe/Needle
_____			Cary-Blair Transport Medium (for stools and bacteriology cultures)
_____			Microtest Transport Medium (for viral and chlamydia isolation)
_____			Pertussis Transport Medium (for culture, not PCR)
_____			Polyester Flexible Wire Swabs for Nasopharyngeal Collection
_____			White Specimen Mailing Tubes
_____			Specimen Bags      _____ Mailing Labels
_____			Whirlpack Bags      _____ Gloves      _____ Ice Packs

### Forms

\_\_\_\_\_ Standard Laboratory Requisition Forms (blue)  
\_\_\_\_\_ Chlamydia / GC Request Forms (green)  
\_\_\_\_\_ Neonatal Screening Forms      \_\_\_\_\_ Envelopes  
\_\_\_\_\_ Premarital Certificates  
\_\_\_\_\_ Meat Inspection Testing Request Forms

*Please Note: These supplies are the property of the State of Montana and are to be used only for business with the Montana Department of Public Health and Human Services.*

# Packaging and Shipping Guidelines

It is the responsibility of the facility to ensure proper packaging and shipping of all potentially infectious and biological substances. Listed below are some general guidelines and links to websites that will provide more detailed information.

## Category A

“Infectious Substance Affecting Humans UN2814”

Category A: “An infectious substance in a form capable of causing permanent disability or life-threatening or fatal disease in otherwise healthy humans or animals when exposure occurs by release outside of its protective packaging, resulting in physical contact with humans or animals” (i.e., high infective dose possible if exposure occurs)

## Category B

Biological Substance UN 3373”

Category B: “An infectious substance NOT in a form generally capable of causing permanent disability or life-threatening or fatal disease in otherwise healthy humans or animals when exposure to it occurs. This includes Category B infectious substances transported for diagnostic or investigational purposes.”

## Non-Infectious Substances

### Exempt Human Specimens

Exempt Human Specimen label indicates there is no infectious substance in the package. Examples of Exempt human specimens include fecal occult blood and dried blood spots. Professional judgment must be used to determine transport by Category B or Exempt status.

For more information please visit the following sites:

[http://www.who.int/csr/resources/publications/biosafety/WHO\\_CDS\\_EPR\\_2007\\_2cc.pdf](http://www.who.int/csr/resources/publications/biosafety/WHO_CDS_EPR_2007_2cc.pdf)

[http://www.iata.org/whatwedo/cargo/dangerous\\_goods/](http://www.iata.org/whatwedo/cargo/dangerous_goods/)

[DOT: Transporting Infectious Substances Safely](#)

# SPECIMEN PACKAGING INSTRUCTIONS

Example of **acceptable packaging** of specimens for  
Montana Public Health Laboratory



A. Only one type of requisition and  
one associated specimen per bag.

***ALWAYS** place requisition in outer pouch of transport bag.  
**NEVER** place requisition inside bag with specimen.*

Examples of **unacceptable packaging** of specimens for  
Montana Public Health Laboratory



B.



C.



D.



E.

- B. More than one patient and more than one type of requisition per bag.
- C. Single patient with multiple types of requisitions and specimens per bag.
- D. Specimen rolled inside requisition and fastened with an elastic band.
- E. Patient demographic label, tape or staples used to attach specimen to requisition and not in biohazard bag.